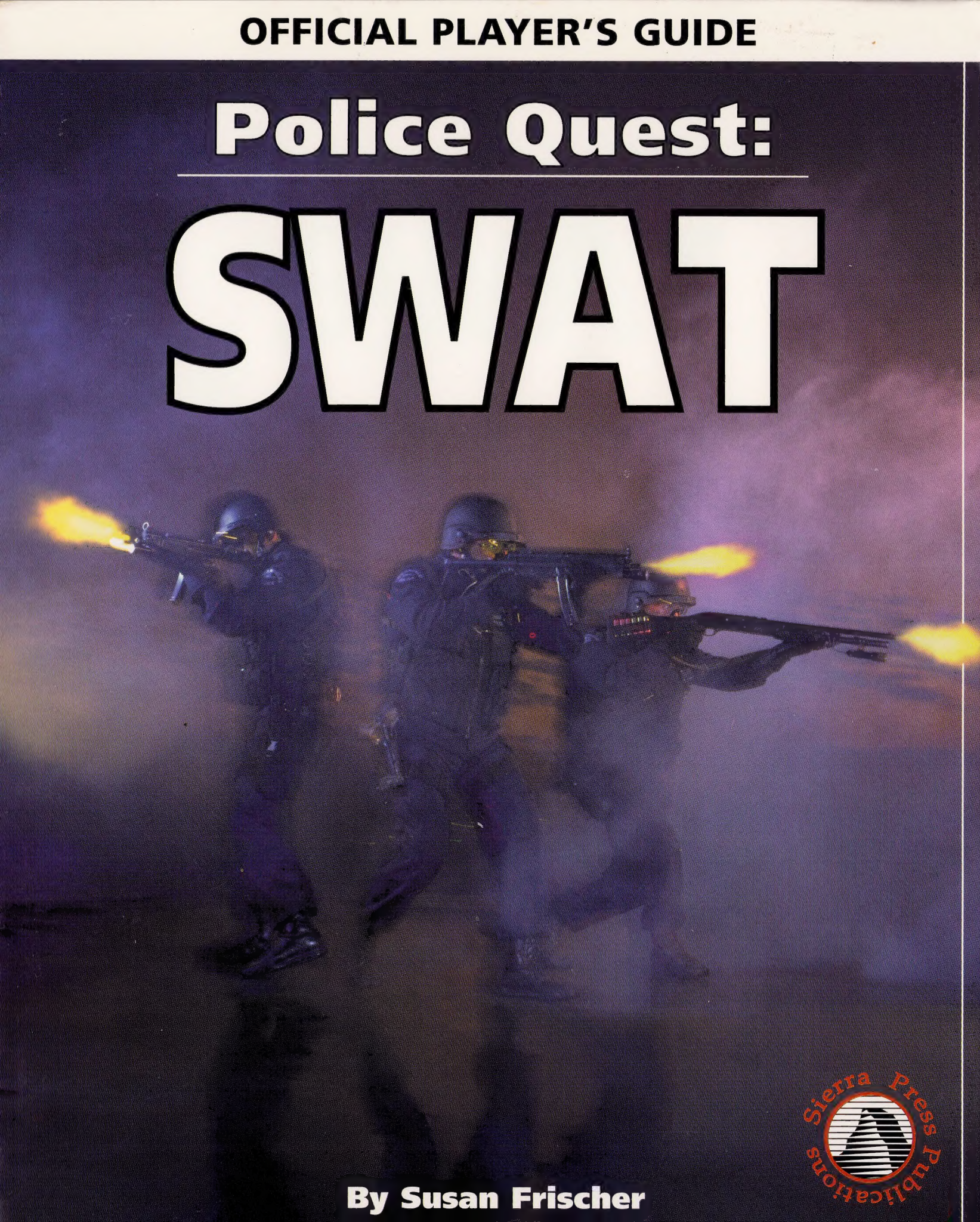
OFFICIAL PLAYER'S GUIDE

Police Quest:

SWAT



By Susan Frischer

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SWAT

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By Susan Frischer

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For my roommates: Greg, Jeffrey, Kelly, and Smudge,
without whose love and companionship this book
would have been done all the sooner.

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INTRODUCTION

"I think in the SWAT game we're teaching people that we don't live on violence, that the police don't respond to violence with violence unless it's absolutely essential and absolutely within the law."

Chief Daryl F. Gates, Ret.

Police Quest: SWAT is a game that takes itself very seriously. It has been designed to simulate the experiences of Los Angeles Police Department SWAT officers with as close an eye to reality as possible. As a new SWAT recruit, you will go through the training process until you have learned enough to handle a crisis. Then you become eligible to be called up as an assaulter, rolling on emergency situations.

As an assaulter, you are assigned a position on the entry team. You must follow orders and keep your wits about you to help bring the operation to a successful conclusion. If you succeed, you will earn medals and promotions as you continue up the career ladder. Pass the sniper qualification test to be assigned to the sniper position on one of the call-ups. Show enough smarts, talent, and courage and you'll rise to the rank of element leader. As element leader, you will be in charge of the entry team and call their every move and tactic.

Chapter 1 introduces you to the SWAT officers, gives you the low-down on training and familiarizes you with the weapons you'll be using. Chapter 2 contains a walk-through to get you through tough spots in the call-ups. If you want to zip through the call-ups successfully, check out the bold statements in the text — they are the must-do actions. The walk-through, however, delineates only one path through the game. Experimentation and deviation from the proscribed path can lead to interesting, challenging experiences. It can also lead to death. Chapter 3 is an illustrated tactical education section explaining SWAT history, strategy, tactics, and marksmanship. Chapter 4 has candid interviews with former LAPD Chief Daryl Gates and the six SWAT officers who served as advisors to Sierra On-Line while the game was in production. We round out the book with Chapter 5, a detailed, behind-the-scenes look at the making of *Police Quest: SWAT*. The designer, artists, programmers, and other team members reveal their personal experiences and challenges faced during the making of this exciting tactical simulation.

Be safe, be smart, and have fun!

Chapter One

Training and Weapons

Survival as a SWAT officer depends on mastering a plethora of tactics, skills, and weaponry. Don't skimp on training — it can mean the difference between lives lost and medals gained. This chapter introduces your fellow officers and walks you through the training and gear galleries. In the Dope Book section you'll find a complete explanation of range and windage estimation and compensation. If you need additional assistance with the interface, check the manual for detailed descriptions of every button, box, and cursor, as well as instructions for interacting with the Metro classroom, shooting ranges, and gear galleries. This chapter does not repeat that information. We don't want to tell you how to play the game; we want to help you win the game!

Meet the SWAT Officers

This is you, the new guy: young, eager, still wet behind the ears. Although you're an experienced police officer with six years on the force, you've got one hell of a lot to learn about SWAT. It's not going to be easy, but with dedication, training, and the help of your fellow officers, someday you'll grow up to be a Big Dog.

SWAT Pup

Sgt. Rooker is the senior officer under the lieutenant. As the sergeant of your element, he's your direct supervisor. In the classroom, he is your teacher. In the field, he is your commander and serves as your contact via LASH to the outside world. Pay close attention to every word this man says. The tactics you learn in his classroom will save your life where the rubber meets the road.

Sergeant Rooker

Officer Pacmeyer is your element leader. Friendly and encouraging, he is your ideal of what a SWAT officer should be. He's bucking for a promotion to sergeant, so listen up and follow his orders. Who knows? Someday you might just take his spot on the team.

Officer Pacmeyer

Officer Denton is the second senior member in the element. An expert rear guard, Denton covers the scout upon entry. He's fearless but never reckless, and his experience makes him a valuable asset to a new SWAT officer.

Officer Denton

Officer Saunders ("Call me J.D.") is your observer at the Angeles Range and a drill instructor at the Combat Range. He sees sharpshooting as a science and knows that his skills protect innocent citizens from harm. His interest in the legal system extends beyond his current profession as he is also a law student.

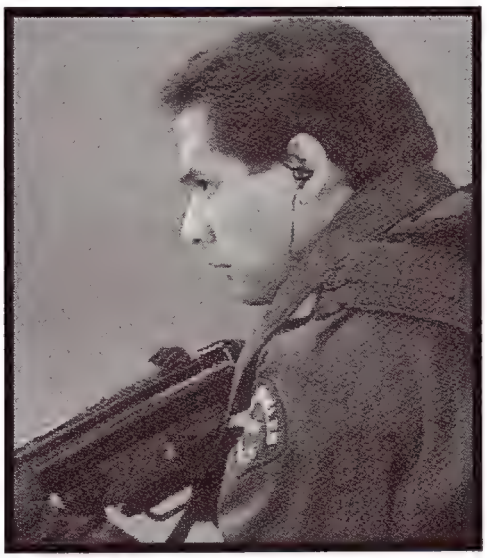
Officer Saunders (aka "The Lawyer")

Cross-trained as a sniper, Danny Tello is as proficient at high-ground cover as he is at making a strategic entry. Good-natured and easygoing, Tello may say he'd rather be fishing, but he takes his work seriously and practices long hours on the range to improve his sharpshooting skills.

Officer Tello

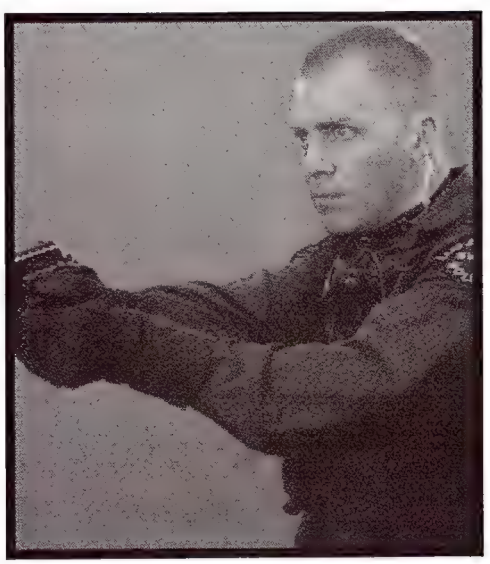
Officer Carmichael is an assaulter assigned to the position of scout on the entry team. He and Officer Denton are at the forefront of every critical situation. Brave and idealistic, Carmichael is dedicated to the SWAT credo of preserving life.

Officer Carmichael



Officer Rhea is a SWAT assaulter. His reputation as the sloppiest member of the element has earned him a second nickname: Pig Pen.

Officer Rhea (aka "Hotdog")

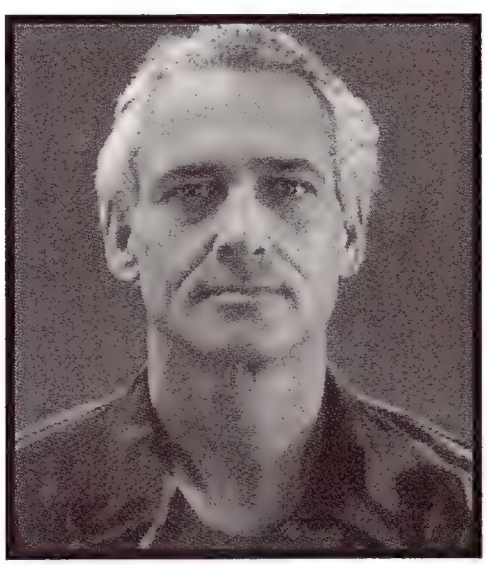


The strong and silent type, Scotty Wixell is an assaulter on the entry team. His calm demeanor and professional approach to any situation make him a valuable asset to the SWAT unit.

Officer Wixell (aka "Mad Dog")

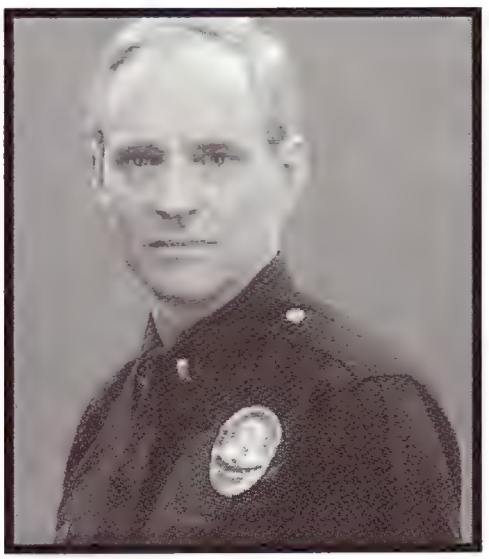
Sgt. Pauldon runs the Small Arms Range like a well-oiled machine. A no-nonsense kind of guy, he will not tolerate any monkey business when weapons are involved.

Sergeant Pauldon (aka "Sgt. Meanie")



A gracious, dignified gentleman of the old school, Sgt. Pruett is responsible for sharpshooting training. Pruett appreciates the Angeles Range's location in the Angeles Crest National Forest. An excellent sharpshooter, one might say he's completely "at home on the Range."

Sergeant Pruett

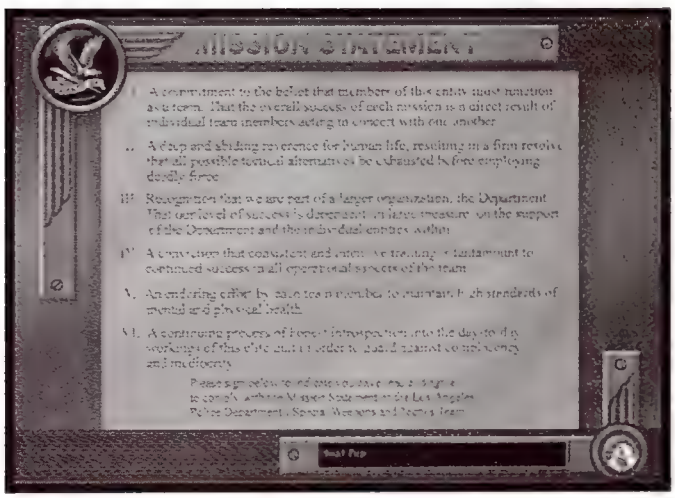


The main man. When the lieutenant's not happy, ain't nobody happy. Hancock was a lieutenant in the Scientific Investigation Department and Bomb Squad before transferring to SWAT. His long history with the department gives him a thorough understanding of every aspect of police work and the LAPD.

Lieutenant Hancock

You won't find Sierra On-Line's traditional Hand, Walk, Talk, and Look icons in *Police Quest: SWAT*. You use a default arrow cursor and specific inventory, hand signal, and room entry cursors to interact with the game. Click the left mouse button to use the arrow for general game control, to instigate movement and conversation, and for general manipulation. Click the right mouse button to cycle through the cursors currently available to you.

Training

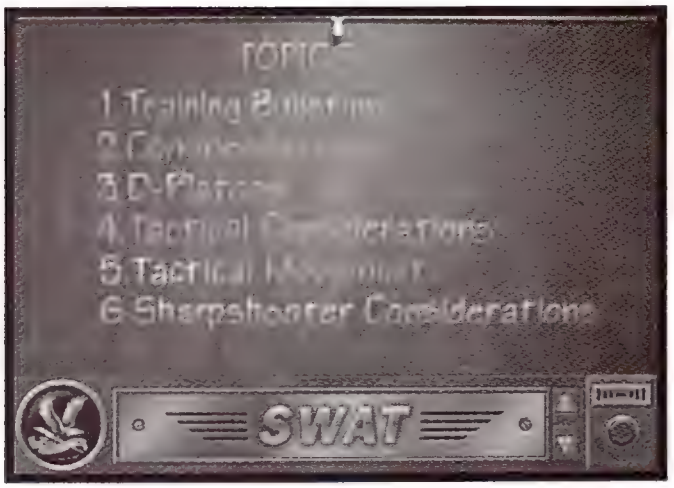


METRO CLASSROOM: FIRST VISIT

Watch the introduction, select "New Career," then sign the mission statement by typing in your *nom de guerre*. Enter your name to go to Metro Division where you are introduced to Sergeant Rooker and Officer Pacmeyer. You may stop their lecture by clicking on either man, but be forewarned that they are imparting words of wisdom and will not take kindly to being interrupted.

After they're gone, familiarize yourself with the control panel and then explore the classroom. Click on the bulletin boards and read the messages. Click on the TV or the VCR. This will access the Interactive Profile section of the game. Here you can question real SWAT sergeants about everything from tactics to their personal lives. When you're done interviewing them, return to the Metro classroom by clicking on the SWAT logo.

What skills are important for a crisis negotiator?
Describe the "suitcase" phone that is used for suspect negotiations.
What does it mean when the suspect refuses to talk to the crisis negotiator?
What kinds of things do suspects request during negotiations?
What do you do on a call-up involving a
SGT. MICHAEL ALBANESE
INTERVIEW
SWAT

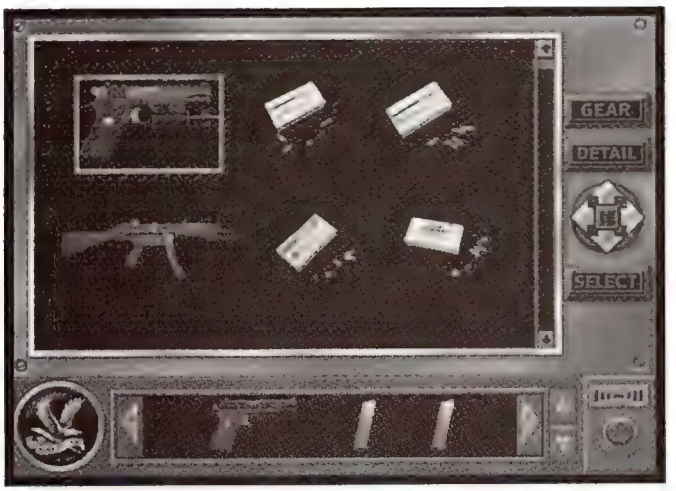


Click on the chalkboard. You'll see a close-up of the Tactical Education menu. Click on the category that interests you. Note that not all of this information (and there certainly is a lot of it) relates directly to the game. Therefore, this section should be used as an additional source of reference for anything puzzling that might come up during lectures or call-ups.

When you're ready to leave the classroom, click on the door to the right of the chalkboard to access the Travel Map. The three possible locations are the Police Academy (small arms training and combat training), the Angeles Range (sniper training), and Metro. Select the Police Academy from the Travel Map. There you will receive the necessary small arms training to qualify as a member of the SWAT assault team.

POLICE ACADEMY RANGE: SMALL ARMS TRAINING

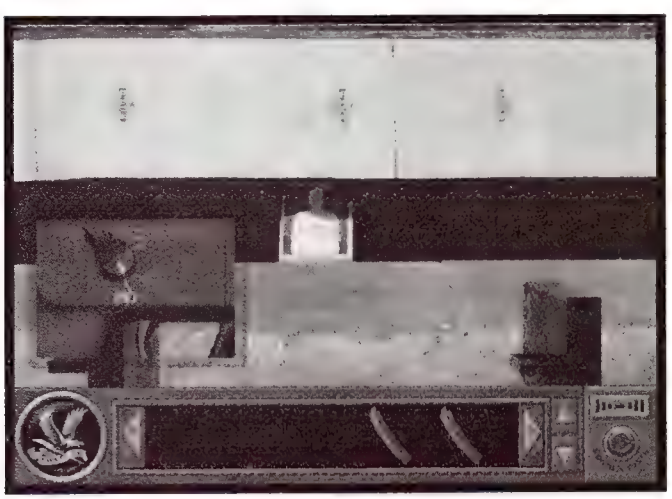
When you select the Police Academy Range from the Travel Map, you automatically go to the Small Arms Gallery to pick up your gear. The same interface is used for both the Police Academy Gallery and the Angeles Range Gallery. The collection of available gear changes to be appropriate for either small arms shooting or sniping, respectively. Examine the gear to your heart's content or check out the Gear Gallery section at the end of this chapter.



When you're ready to do some shooting, just click on the Select button and your gear goes into the Inventory Panel. Click the Information button (SWAT logo) and select the Small Arms Range as your destination.

Your first training session at the Small Arms Range is described in detail in the SWAT game manual. Load the MP-5 by clicking the magazine on the weapon in the inventory panel. Then select the MP-5 and click the selector lever to semi-auto. Click elsewhere on the screen to close the selector lever inset. The six drills are randomly selected from the following:

- Single shot to the head in semi-auto mode. Par time = 1.5 seconds.
- Two shots to center mass on semi-auto. Par time = 2 seconds.
- Two shots to the body and one to the head on semi-auto (called the Failure Drill). Par time = 2.5 seconds.



You have a 30-round magazine but if you wish to reload, click the weapon cursor on the magazine in the inventory panel. Once you've successfully completed the first set of drills, you become eligible to train on the Combat Range. Click on the Information button and select Assaulter Briefing as your destination.

COMBAT RANGE

After completing the first drill at the Small Arms Range, the Combat Range will be accessible from the Assaulter Gallery. Select your gear, then choose Combat Range from the list of possible destinations.

Pacmeyer meets you at the Combat Range and tells you about your first drill. The drills, selected at random, are the Dozier, the Presidente, and the Combat. Each drill may be repeated multiple times during each visit to the range. See the game manual for descriptions of the individual drills. Par times are listed below:

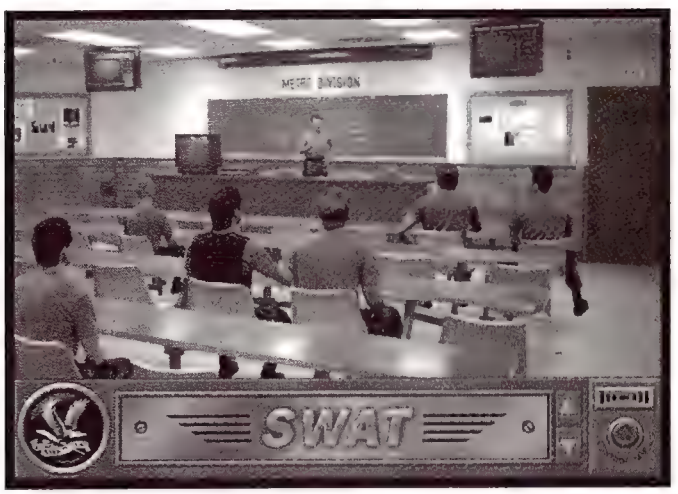
- Dozier Drill: 5 seconds (20 seconds max.)
- Presidente Drill: 10 seconds (20 seconds max.)
- Combat Drill: No par (20 seconds max.)

The Combat Range interface is similar to that of the Small Arms Range, except you'll be using the Colt .45, which doesn't have a selector lever. You can leave the Combat Range at the conclusion of any drill. Click the Information button to access the Travel

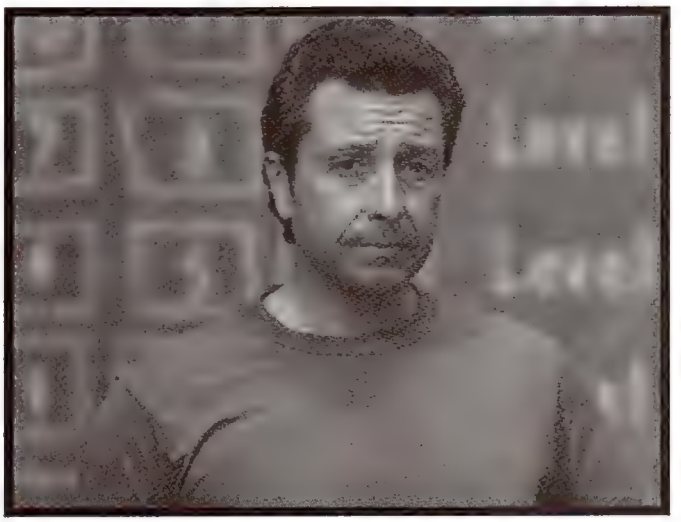
Map and return to Metro for your introductory briefing on tactics.

METRO CLASSROOM: TACTICAL BRIEFING

After you participate in small arms training, you will sit in on an introductory tactics briefing when you return to Metro. Sergeant Rooker is the speaker of the day, and man, can that guy talk! To bypass the lecture hit the spacebar, but it's best if you sit tight and listen to the sergeant. What he has to say is relevant to the crisis situations you will be facing. When Rooker takes a breath and asks for questions, that's your cue.



If you click on Rooker, you will ask a question. He answers your question and then continues the lecture. If you do nothing at all, Rooker will pick up where he left off. If you really have to go (it's just down the hall), click on the Information button or the Control Panel button for a way out. But try to stick it out; you'll learn a lot of valuable info. When Rooker has said his piece, you will be dismissed and the first crisis call-up begins immediately.



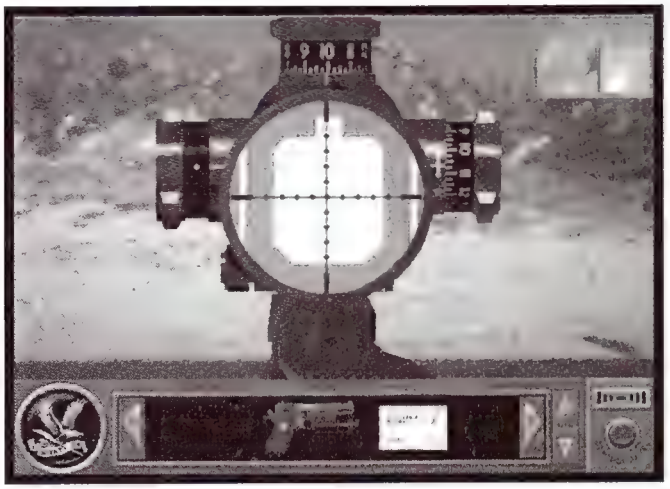
To be an effective marksman you need to master the sniper interface. Click the right-hand mouse button to toggle between the arrow and the ammo cursor. Left-click to toggle between firing mode (arrow cursor) and aiming mode (no cursor).

ANGELES RANGE: FIRST TRAINING SESSION

You can only train to be a sniper after you've completed the first small arms training session. To get to the Angeles Range, select it from the Travel Map. Study the gear in the Sniper Gallery, then click on

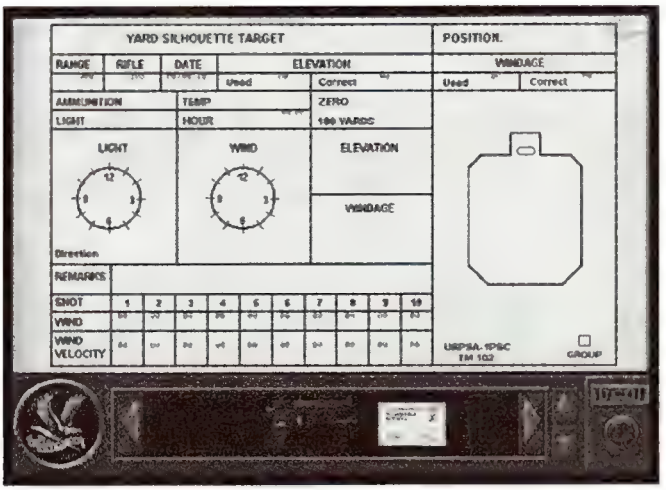
the Select button to put the arsenal in your inventory box. Select the Information button and choose the Angeles Range to go back outside.

Your sniping partner, J.D. Saunders, introduces you to Sgt. Pruett. After the introduction, click on the long tables. Saunders will help you zero your rifle. Listen to what he has to say, then click on the Robar SR60 sitting on the table to bring up the sniping interface. Move the reticle across the target. When you have positioned the crosshairs in the center of the one-inch-square target, left-click again to lock in your aim and retrieve the arrow cursor. To fire, click the arrow on the gun bolt.



Fire. Notice that the bullet is way off target. Adjust the Bullet Drop Compensator (BDC) and windage knobs so that the crosshair is centered on the bullet's actual hit.

To reload, click on the .308 ammo. Notice that the cursor changes. Click the ammo cursor on the gun bolt. Then re-aim at the target and fire. Saunders will offer his assistance until you've made the correct adjustments. If you have additional questions about marksmanship, look in Chapter 3 (SWAT Tactics) of this book for in-depth explanations of bullet drop, up/down compensation, and windage, or pay a visit to the Tactics Education area in Metro.

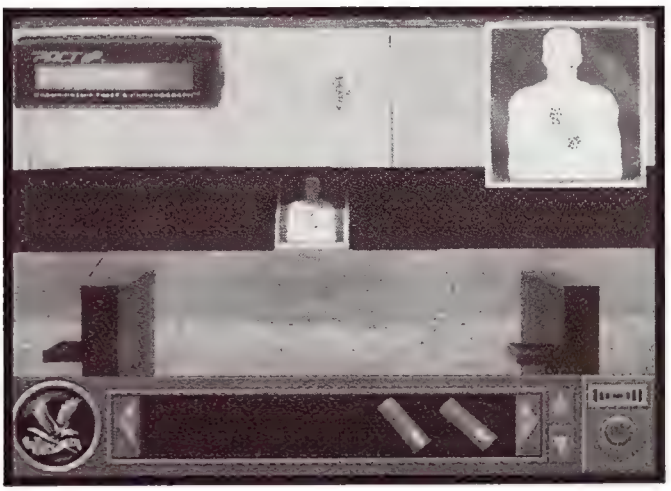


After you've zeroed the rifle and confirmed the zero with an extra shot, the BDC and windage adjustments for a distance of 100 yards are listed in your Dope Book (see the Dope Book section for a page-by-page description). When you adjust the rifle for future shots, use this data as your point of reference, compensating for distance or windage from this setting. Note that once you've zeroed your rifle for a particular distance, no further BDC adjustment will be necessary when shooting at that distance.

You are now free to continue sniper training, return to Metro, or pay another visit to the Small Arms and Combat ranges. If you choose to return to the Police Academy Range, see the following section.

POLICE ACADEMY RANGE: SUBSEQUENT TRAINING SESSIONS

After the first small arms training session, subsequent sessions will be random drills with either the MP-5, Colt .45, shotgun, or M-16. When you enter the range, Sergeant Pauldon will tell you what weapon will be used for that session. Each session consists of six drills with the same weapon at either 7 or 15 yards. Select the appropriate weapon from the Inventory.



If you've chosen the correct weapon, Pauldon will call out the drill for the first time. If the weapon is the MP-5, the selector lever appears. Set it. If the weapon is the shotgun, make sure to load it with the correct ammunition for that particular drill (either buckshot or a one-ounce slug). After three seconds, Pauldon will call out the drill a second time and then the whistle will sound. Shoot at the paper target as per instructions within the time allowed. Some drills are from the 15-yard line. To change your distance, click on the back stalls. The drills are randomly selected from the following:

Shotgun:

- Single shot to center mass, buckshot
- Two shots to center mass, buckshot
- Single to center mass, one-ounce slug (15-yard line only)
- Two shots to center mass, one-ounce slug (15-yard line only)

MP-5:

- Single shot to the head, semi-auto
- Two shots to center mass, semi-auto
- Failure drill — two shots to the body, one to the head, semi-auto

M-16:

- Single shot to the head, semi-auto
- Two shots to center mass, semi-auto
- Failure drill — two shots to the body, one to the head, semi-auto

.45:

- Single shot to the head
- Controlled pair to center mass
- Failure drill — two shots to the body, one to the head

After a series of six drills, Pauldon will tell you to secure your weapon. If the drill is with the MP-5, put the selector lever on safe. You will return to the third-person view of the firing range. If you wish to leave at this time, click on the Information button to see your travel options. If you just stand around doing nothing, you'll go back to the firing line and Pauldon will tell you to get ready for the next drill.

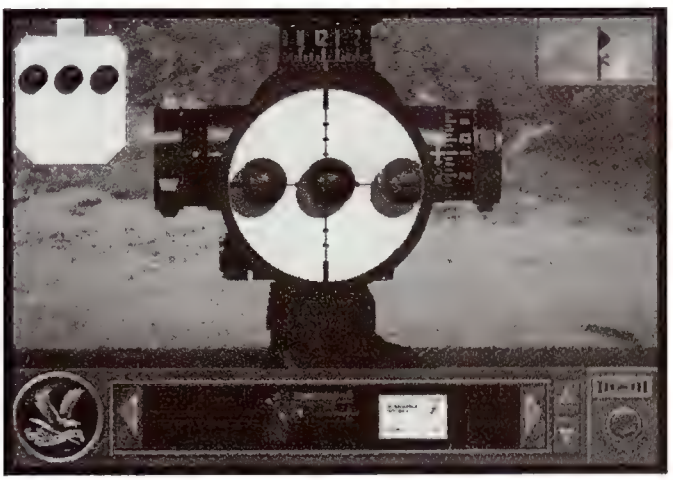
ANGELES RANGE: SUBSEQUENT TRAINING SESSIONS

When you return to the Angeles Range, Saunders offers to spot for you. He will call a series of random drills. Before firing, you need to make adjustments based on distance and windage conditions. Use your zero settings (recorded in the Dope Book) as a point of reference.

Target distance will vary from 25 to 500 yards. For distances over 100 yards, you need to compensate with the BDC (see the range estimation charts in the Dope Book or game manual). Once you've zeroed your rifle for a certain distance, no further BDC adjustment will be necessary when shooting at that distance.

The wind will be a random factor that changes after every drill. Compare the flag's angle to page 4 in the Dope Book to determine the wind's velocity. Compensate for the wind at distances greater than or equal to 100 yards (see the windage charts in the Dope Book or game manual). Adjust the windage knob depending on the speed and direction of the wind. Note that at distances of 400 and 500 yards and winds of 20 to 25 mph you may not be able to make the full windage adjustment due to limits in the knob's range. In this case, make the largest adjustment possible, then compensate further by slightly offsetting your aim into the wind.

When adjusting the BDC for distances greater than 100 yards, note that the reticle appears to move down. In reality, you will aim higher to compensate for the increased range. Likewise, to compensate for wind blowing from the right, click on the lower half of the windage knob (labeled R). You adjust your aim to the right while moving the reticle to the left.



The drills are randomly selected from the following:

- Five-shot group at 25, 50, 75, and 100 yards
- Nine targets at 25, 50, 75, and 100 yards
- Three balloon targets at 25, 50, 75, and 100 yards (call the color)
- Silhouette at 100, 200, 250, 300, 400, and 500 yards (call the shot placement)

At the end of each drill, if you do nothing for 10 seconds, you'll go back to the firing line to continue with subsequent sniper drills. To leave, click on the Information button and choose another destination. If you're ready to become a sniper, go back to Metro after two sniper training sessions. Pacmeyer asks if you want to try to qualify for the open sniper position.

Be sure to read the Dope Book section to learn how to compensate for distance and wind. If the procedures seem too complicated, however, you can try to visually offset your aim to make adjustments. For instance, if a stiff wind is blowing from the right, aim to the right of the target. And rather than adjusting your BDC, aim higher when shooting at longer distances. This "seat of your pants" approach may not be as scientific as LAPD sniper methods, but you still may qualify as a sharpshooter.

Sniper Qualification Test

If you say "Yes" to Pacmeyer's query, you begin the sniper qualification testing the next time you go to the Angeles Range. If you say "No," the next two visits to the Angeles Range will be for practice only. But don't worry; you haven't blown your chance to be a sniper. After every two practice sessions, Pacmeyer will reappear in the Metro classroom and repeat his invitation to attempt qualification. When you think you're good enough, give it a shot.

Saunders meets you at the range and offers to spot you during your test. Save your game at this point just in case you don't pass on your first try. Click the arrow on the rifle case to bring up the firing line. The sniper qualification test consists of the following drills:

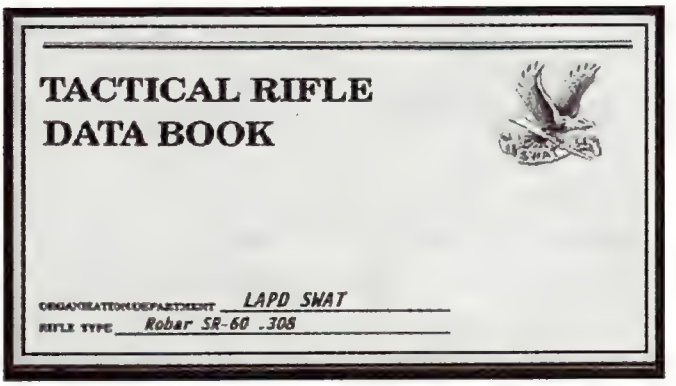
At 100 yards:

- Cold barrel shot
- Five round group in a 1½-inch-square
- Nine rounds into 9 1½-inch-square targets

If you miss any of the shots, you fail the qualification test. Restore your save game or return to the range for two more practice sessions. Then go back to Metro where Pacmeyer will give you another chance.

If you hit all your shots, you become eligible to be called up as a sniper. Note that though you may leave the qualification session at any time by way of the Information button, if you choose to do so, you will not be able to come back and pick up where you left off. Just as if you had failed the test, you will need to participate in two additional sniper training sessions before getting a chance to qualify.

Tactical Rifle Data Book (Dope Book)



Cover Page: Look at the Dope Book by clicking on it in your Inventory (or by looking at the reprints in the game manual). Turn pages forward by clicking on the top right corner. Turn pages back by clicking on the dog-eared top right corner. Exit the Dope Book by clicking on the lower left corner of the book. Tables and charts take up the first seven pages

of the Dope Book. The next three pages record your shooting information. When you have filled these three pages, they will be recycled.

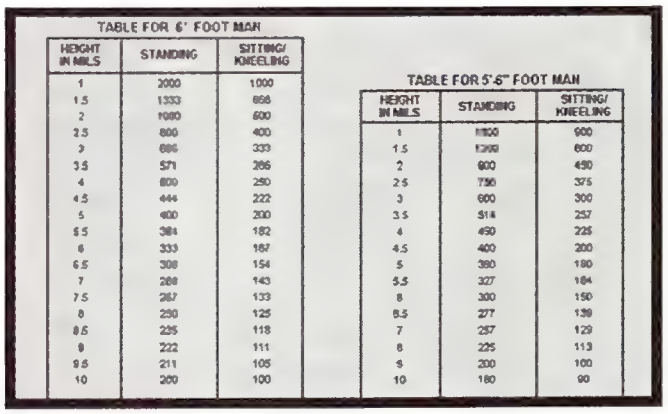


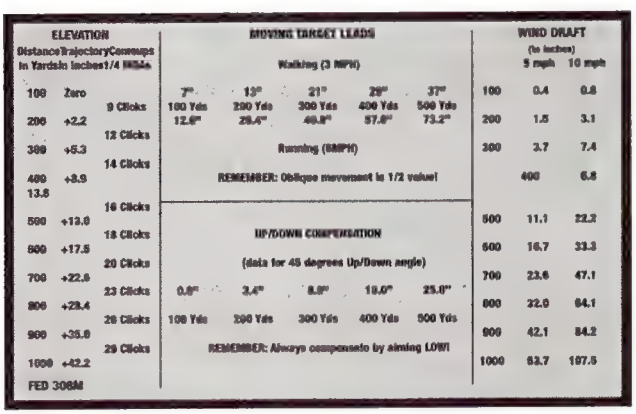
TABLE FOR 6' FOOT MAN

HEIGHT IN MILS	STANDING	SITTING/ KNEELING
1	2000	1000
1.5	1333	666
2	1000	500
2.5	800	400
3	666	333
3.5	571	286
4	500	250
4.5	444	222
5	400	200
5.5	364	182
6	333	167
6.5	308	154
7	286	143
7.5	267	133
8	250	125
8.5	235	118
9	222	111
9.5	211	105
10	200	100

TABLE FOR 5'-6" FOOT MAN

HEIGHT IN MILS	STANDING	SITTING/ KNEELING
1	1800	900
1.5	1200	600
2	900	450
2.5	750	375
3	600	300
3.5	514	257
4	450	225
4.5	400	200
5	360	180
5.5	327	164
6	300	150
6.5	277	139
7	257	129
8	225	113
9	200	100
10	180	90

Page 2 — Range Estimation: These two tables provide range estimations based on target height. Use the left table if you estimate the suspect's height at 6 feet. The table on the right is for a man 5-feet-6-inches in height. Here is an example of how these tables work: Suppose the suspect is approximately 6 feet tall, but he is kneeling behind a bush. You look at him through the rifle scope and see that he measures 5 mil dots on the reticle (see Chapter 3 for a definition of mil dots). Using the table on the left, find the row for 5 mil dots. Look across to the column labeled "Sitting/Kneeling." The suspect is approximately 200 yards away. Now that you know the estimated range, you can use that information to determine your BDC adjustment, or come-ups (see Dope Book, page 3).



ELEVATION

Distance/Trajectory/Comeups in Yards/in Inches/1/4 MOAs

100	Zero	
200	+2.2	9 Clicks
300	+5.3	12 Clicks
400	+9.9	14 Clicks
500	+13.8	16 Clicks
600	+17.5	18 Clicks
700	+22.0	20 Clicks
800	+28.4	23 Clicks
900	+35.0	26 Clicks
1000	+42.2	29 Clicks

FED 308M

MOVING TARGET LEADS

Walking (3 MPH)

7"	13"	21"	29"	37"
100 Yds	200 Yds	300 Yds	400 Yds	500 Yds
12.6"	28.4"	46.8"	67.6"	73.2"

Running (6MPH)

REMEMBER: Oblique movement is 1/2 value!

UP/DOWN COMPENSATION

(data for 45 degrees Up/Down angle)

0.8"	3.4"	8.8"	19.0"	25.0"
100 Yds	200 Yds	300 Yds	400 Yds	500 Yds

REMEMBER: Always compensate by aiming LOW!

WIND DRAFT

(in inches)

	5 mph	10 mph
100	0.4	0.8
200	1.5	3.1
300	3.7	7.4
400		6.8
500	11.1	22.2
600	16.7	33.3
700	23.6	47.1
800	32.0	64.1
900	42.1	84.2
1000	53.7	107.5

Page 3 — Elevation, Leads, Up/Down Compensation, and Wind Drift

Elevation (Come-Ups): This table shows the number of clicks (¼ MOA) necessary to compensate for distance. The first column lists the range in yards. The second column lists how far off in inches the shot will be without compensation. The third column lists the come-ups. As an example, suppose you've estimated the range at between 400 and 500 yards. Find 400 and 500 yards in the range column and then read across to see what value lies between them. Your come-ups for between 400 and 500 yards is 16 clicks (or 4 MOA). Adjust the BDC accordingly. (See BDC settings below) Note that for exact distances, use the value that's listed slightly higher than the yardage (for example, if the distance is 400 yards, adjust 14 clicks, not 16).

Example of BDC settings (assuming BDC zero at 6.25)

1...2...3...4...5...6...7...8...9...10...11...12.

yards 500 400 300 250 200 100

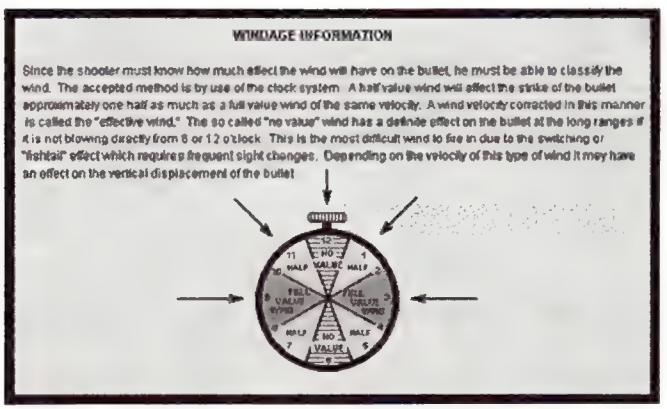
Down from 100 yd zero	Distance	Clicks up from 1.00	Setting
0 clicks	100 yards	21 clicks	6.25
9 clicks	200 yards	12 clicks	4.00
10 clicks	250 yards	11 clicks	3.75
12 clicks	300 yards	9 clicks	3.25
14 clicks	400 yards	7 clicks	2.75
16 clicks	500 yards	5 clicks	2.25

Moving Target Leads: When you're shooting at a moving target, you can gauge your shot so that by the time your bullet reaches the target, it will have moved into your crosshairs. This table lists the distance in inches that the suspect will move from the time the rifle fires to time of impact.

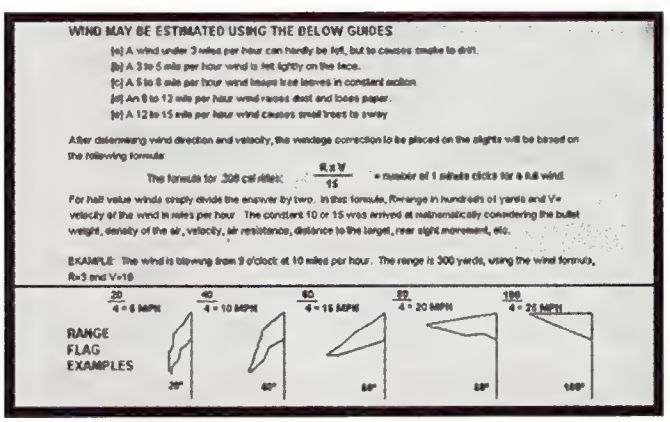
Up/Down Compensation: Up/down compensation adjusts for the difference in elevation between the sniper and the target. Whether you're compensating for an uphill or a downhill change in elevation, always aim lower (the reason for this is rather difficult to

explain. Just be satisfied with knowing that gravity has something to do with it). This table lists the compensation distance in inches for a target at an angle of 45 degrees (either higher or lower) from you.

Wind Drift: At a distance of 1,000 yards, a mere 10 mile per hour crosswind can blow a bullet as much as 100 inches off course. Therefore, it's obvious that windage must be compensated for along with distance, elevation, and target lead. However, if the target range is less than 100 yards, the wind's influence will be negligible. This table lists some values for wind drift. You will actually use the equation on page 5 of the Dope Book to calculate windage scope adjustments.


WINDAGE INFORMATION
Since the shooter must know how much effect the wind will have on the bullet, he must be able to classify the wind. The accepted method is by use of the clock system. A half value wind will affect the strike of the bullet approximately one half as much as a full value wind of the same velocity. A wind velocity corrected in this manner is called the "effective wind." The so called "no value" wind has a definite effect on the bullet at the long ranges if it is not blowing directly from 6 or 12 o'clock. This is the most difficult wind to fire in due to the switching or "fishtail" effect which requires frequent sight changes. Depending on the velocity of this type of wind it may have an effect on the vertical displacement of the bullet.

Page 4 — Windage Information: This is interesting information, though in this game the adjustment for an oblique wind will be calculated as three-quarters of the value of that for a full cross-wind, not half the value as is stated here.



Page 5 — Windage Information, continued: Estimate the wind by observing its effect upon the flag. Compare the flag's angle to the pictures at the bottom of the page. Match the picture to the flag and you'll know approximately how fast the wind is blowing. Now look at the equation in the center of the page. Looks a little bit scary, doesn't it? Here goes.

$R \times V / 15$ = wind adjustment in MOAs
(x4 = adjustment in clicks)

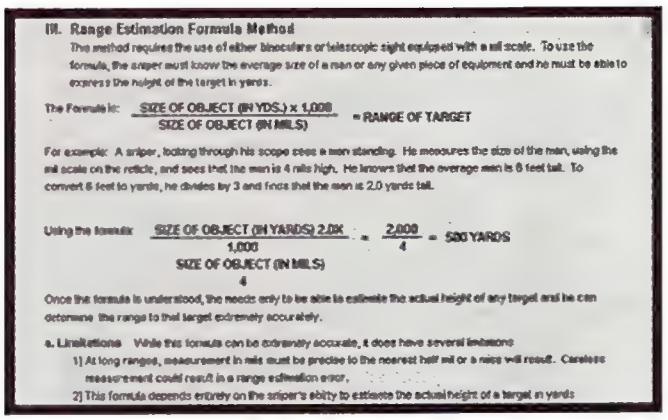
R is the range in 100s of yards (ie: if the range is 500, R = 5). V is the wind's velocity in miles per hour. As an example, suppose you're shooting at a distance of 200 yards and the wind is blowing obliquely (at an angle of approximately 45 degrees) at 25 mph. R = 2 and V = 25 so (R x V) / 15 = (2 x 25) / 15 = 50/15 = 3.33. Since the wind is blowing obliquely, you'll want to take three-quarters of this value. 3.33 x .75 = 2.5. At 4 clicks per MOA, 2.5 MOA = 10 clicks. You'll want to adjust the windage knob 10 clicks in the direction of the wind (for example, if the wind is blowing to the left, adjust the reticle to the left to compensate for the wind's effect on your shot).

Wind (mph)

Range (yards)	5	10	15	20	25
100	1/1	3/1	4/3	5/4	7/5
200	3/2	5/4	8/6	11/8	13/10
250	3/3	7/5	10/8	13/10	17/13
300	4/3	8/6	12/9	16/12	20/15
400	5/4	11/8	16/12	21/16	27/20
500	7/5	13/10	20/15	27/20	33/25

Windage adjustment for cross and oblique winds in clicks

Crosswind ⟶ 7/5 ⟵ Oblique Wind



III. Range Estimation Formula Method

The method requires the use of either binoculars or telescopic sight equipped with a mil scale. To use the formula, the sniper must know the average size of a man or any given piece of equipment and he must be able to express the height of the target in yards.

The Formula is: $\frac{\text{SIZE OF OBJECT (IN YDS.)} \times 1{,}000}{\text{SIZE OF OBJECT (IN MILS)}} = \text{RANGE OF TARGET}$

For example: A sniper, looking through his scope sees a man standing. He measures the size of the man, using the mil scale on the reticle, and sees that the man is 4 mils high. He knows that the average man is 6 feet tall. To convert 6 feet to yards, he divides by 3 and finds that the man is 2.0 yards tall.

Using the formula: $\frac{\frac{\text{SIZE OF OBJECT (IN YARDS) 2.0K}}{1{,}000}}{\text{SIZE OF OBJECT (IN MILS)}} = \frac{2{,}000}{4} = 500 \text{ YARDS}$

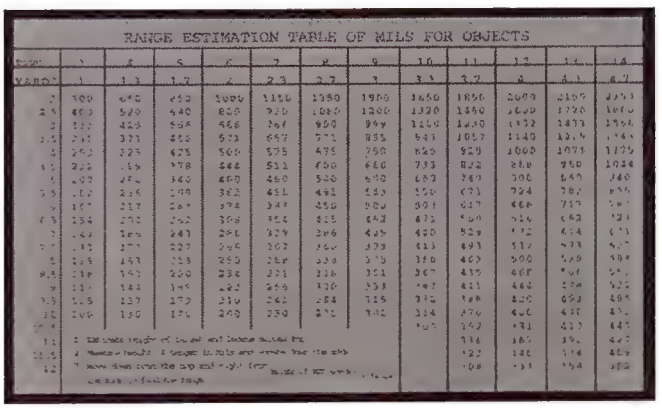
Once the formula is understood, the needs only to be able to estimate the actual height of any target and he can determine the range to that target extremely accurately.

a. Limitations While this formula can be extremely accurate, it does have several limitations

1) At long ranges, measurement in mils must be precise to the nearest half mil or a miss will result. Careless measurement could result in a range estimation error.

2) This formula depends entirely on the sniper's ability to estimate the actual height of a target in yards

Page 6 — Range Estimation Formula: This is another method for calculating the estimated range of a target. Plug the suspect's height (in yards) and the measurement in mil dots into the formula to determine the range in yards.



RANGE ESTIMATION TABLE OF MILS FOR OBJECTS

YARDS	1	1.3	1.7	2	2.3	2.7	3	3.3	3.7	4	4.3	4.7
100	600	640	850	1000	1150	1350	1500	1650	1850	2000	2150	2350
200	300	320	425	500	575	675	750	825	925	1000	1075	1175
300	200	213	283	333	383	450	500	550	617	667	717	783
400	150	160	213	250	288	338	375	413	463	500	538	588
500	120	128	170	200	230	270	300	330	370	400	430	470
600	100	107	142	167	192	225	250	275	308	333	358	392
700	86	91	121	143	164	193	214	236	264	286	307	336
800	75	80	106	125	144	169	188	206	231	250	269	294
900	67	71	94	111	128	150	167	183	206	222	239	261
1000	60	64	85	100	115	135	150	165	185	200	215	235
1100	55	58	77	91	105	123	136	150	168	182	195	214
1200	50	53	71	83	96	113	125	138	154	167	179	196
1300	46	49	65	77	88	104	115	127	142	154	165	181
1400	43	46	61	71	82	96	107	118	132	143	154	168
1500	40	43	57	67	77	90	100	110	123	133	143	157
1600	38	40	53	63	72	84	94	103	116	125	135	147
1700	35	38	50	59	68	79	88	97	109	118	127	138
1800	33	36	47	56	64	75	83	92	103	111	120	131
1900	32	34	45	53	61	71	79	87	97	105	113	124
2000	30	32	43	50	58	68	75	83	93	100	108	118

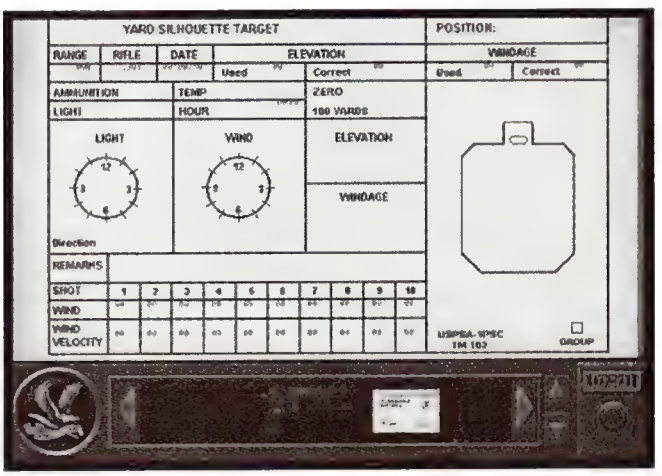
Page 7 — Range Estimation Table II: This table provides you with yet a third option for range estimation. Find the column under the estimated height of your target. Find the row corresponding to the target's measurement in mil dots. Find the intersection between the column and the row and read the estimated distance in yards.

Trajectory Table, Federal Match .308 Boat-Tail Hollow point

Trajectory by Yards, Expressed in Inches

Zero Range	100	200	300	400	500
100 Yards	Zero	-4.5	-15.9	-35.5	-64.6
200 Yards	+2.2	Zero	-9.15	-26.5	-53.3
300 Yards	+5.3	+6.1	Zero	-14.3	-38.1
400 Yards	+8.9	+13.3	+10.8	Zero	-20.1
500 Yards	+13.0	+21.5	+23.1	+16.5	Zero

Page 8 — Trajectory Table: This table shows the effect of gravity on a bullet for a rifle zeroed at different distances. If, for example, you've zeroed your rifle for 300 yards, at a distance of 400 yards, aiming at the bull's eye will result in a shot that is 14.3 inches too low.



Pages 9–11 — Shooting Records:

POSITION: Sniper

RANGE: This will show the range at which you shot

RIFLE: This will always read .308.

DATE AND HOUR: This information will automatically be accessed from your internal computer clock. Each time at the range starts a clean page. The date and hour will be filled in the first time you access the Dope Book during any particular visit. Note that "am" (morning) and "pm" (evening) will not be recorded.

ELEVATION: The box labeled "Used" will show the actual BDC adjustment for the shot. The box labeled "Correct" will show the number of BDC clicks you should have used.

WINDAGE: The "Used" box shows the wind compensation you used. The "Correct" box shows the correct wind compensation in clicks.

AMMUNITION: This number stays the same for the entire game: LOT # 673309-A2. It is important to know your lot number because ammunition can vary from lot to lot.

TEMP: Records the temperature for each visit. Although Los Angeles weather is moderate and does not need to be adjusted for, conditions in harsher climates can affect rifle ballistics.

LIGHT: The sun dial shows the direction of the sunlight.

WIND: This dial shows the direction of the wind. Noon and 6 o'clock require no adjustment for wind; 9 o'clock and 3 o'clock require the full adjustment. An oblique wind (neither straight on nor at 90 degrees) requires three-quarters of the crosswind compensation.

ELEVATION: The BDC compensation for the distance at which your rifle is zeroed. Use as a point of reference when adjusting for other distances.

WINDAGE: The wind compensation for your zero shot. Use as a point of reference.

REMARKS: This field remains blank.

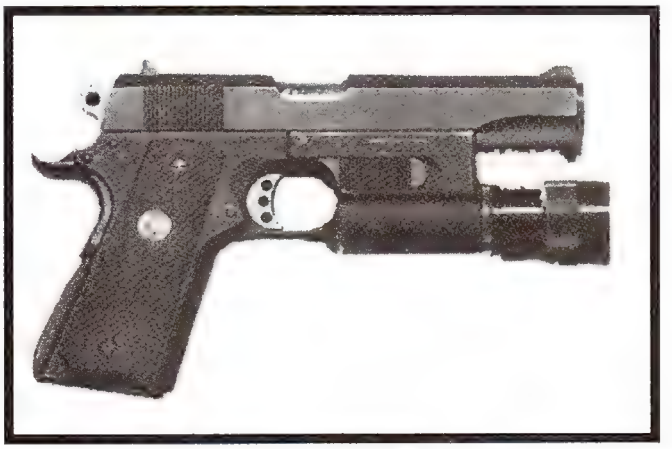
SHOT: The shot number in the training series. Click on a number to see the information for that shot.

WIND VELOCITY: The wind's speed in miles per hour.

TARGET: This silhouette shows shot placement for each individual shot.

Gear Galleries

ASSAULTER GEAR GALLERY



.45 Caliber Colt 1911 Government Model Sidearm

The Colt 1911 is the standard-issue sidearm of D Platoon's tactical officers. The 1911 is known as the Government .45, or simply as the Government, due to its long military history. In 1911, the Government model, designed by John Browning and a contingent of Colt engineers, was officially adopted as the general service pistol by both the United States Army and Navy. The Colt 1911 served in World Wars I and II, Korea and Vietnam, and to some extent, Desert Storm. Included in this military line-up is the U.S. Army's elite counter-terrorist unit, Delta Force, which currently carries a customized version of the 1911. A commercial version of this semi-automatic single action pistol became available for general sale in 1912.

D Platoon's 1911s are modified to include a match barrel, a lightweight aluminum trigger, a beavertail grip safety, an extended thumb safety, a combat hammer, a beveled magazine well, a polished feed ram, a throated barrel, and high-visibility sights. The trigger modification eliminates any possibility of trigger bounce, a problem caused by the inertia of a heavy trigger hitting the sear as the slide slams forward. King Beavertail grip safeties are used to help

absorb recoil and to protect the hand against bruising and hammer pinch. Extended thumb safeties are faster and easier to manipulate than the standard 1911 safety, and high-visibility sights increase the sight radius and offer a better sight picture. Fixed sights are most often found on handguns and are designed to zero out at approximately 25 yards. No consideration is given to the different bullet weights, windage, or elevation an officer might encounter. Fixed sights are very rugged, require no special care, and are accurate for close encounters.

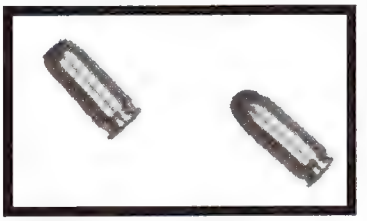
D Platoon's Colt 1911s are also modified and fitted with a SureFire tactical light assembly. The switch plate for the light is ergonomically fitted to the pistol grip for ease in handling. There is no disruption in the officer's movement to turn the light on for clear threat identification. Target identification is essential in close-quarter confrontations. However, if the situation occurs in low light or in darkness, the tactical officer is at a disadvantage. Mounting a light on the weapon is one way around this problem. With the aid of a light source, an officer can establish whether a subject is hostile and whether it is a shoot/no shoot situation. He can also define his opponent's vital areas for shot placement. One tactic employed when using a light in a close-quarter battle is to use the light in bursts and shoot while the light is on. Once the officer has fired, the light is extinguished so his opponent does not have a light-emitting point of reference on which to focus.

.45 Magazine

The Colt's magazine holds eight bullets. The magazine

will disengage and free-fall of its own weight when the 1911's release button, located on the left side behind the trigger, is pressed. This allows an officer to use his free hand to accomplish a smooth tactical reload if necessary. For this reason, some believe the 1911's magazine is the best in the world. D Platoon armorers bevel the magazine to facilitate easy loading.

CCI Spear 200-Grain .45 ACP Jacketed Hollow Point Lawman Load

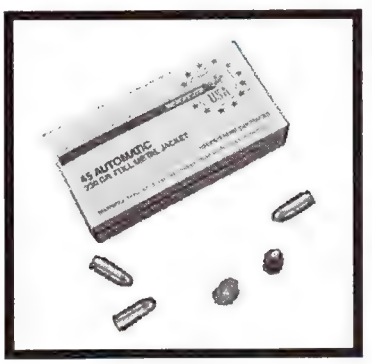


This bullet has earned the nickname the "flying ashcan" due to its width, girth, and bluntness. Upon target penetration it expands from its original .45 size to an impressive .81.

Many experts believe that the JHP has the best expansion reliability of any .45 auto hollow point ever designed. Due to its size, however, there can be problems with feed reliability. Consequently, D Platoon armorers polish and throat the bullets to improve feeding.

Muzzle velocity of the 200 JHP is 975 feet per second. At 50 yards, its velocity is 917 feet per second, while at 100 yards, the 200 JHP's velocity is 860 feet per second. The muzzle energy is 421 foot-pounds. At 50 yards, its energy is 372 foot-pounds; at 100 yards, it's 328 foot-pounds.

Winchester 230-Grain Military Ball Full-Metal Jacket Cartridge



Winchester's 230-grain cartridge has the same recoil and point of impact found in ammo used by the U.S. Armed Forces. The 230 FMJ is a nonexpanding cartridge designed for short range and sustained high velocity.

Muzzle velocity is 835 feet per second. At 50 yards, its velocity is 800 feet per second; at 100 yards, it's 767 feet per second.

Muzzle energy is 356 foot-pounds. At 50 yards, its energy is 326 foot-pounds; at 100 yards, the 230-grain FMJ's energy is 300 foot-pounds. Gauging trajectory using a 5-inch barrel .45, the bullet drop at 50 yards is 1.6 inches. At 100 yards, the drop is 6.8 inches.

Heckler and Koch MP-5 9mm Submachine Gun

Every officer in D Platoon is issued and trained on the MP-5 submachine gun. It is the assaulter's primary weapon. The MP-5 is the undisputed close-quarter submachine choice for vast numbers of law enforcement agencies and military special ops units. This select-fire submachine gun, chambered for pistol-size 9mm cartridges, is accurate, lightweight, and fast.

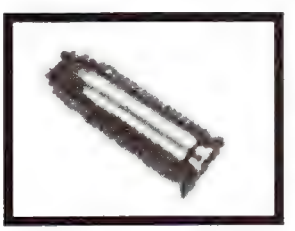
With its 30-round magazine, the MP-5 can fire 800 rounds per minute. Its fixed barrel and light weight (five pounds unloaded) give it a high accuracy rate. The MP-5 is a Class 3 National Firearms Act weapon. It can be sold and owned only by law enforcement agencies and the military.

The MP-5's fixed barrel is cold-forged together with the cartridge chamber. The fact that the MP-5 fires from a closed-bolt position allows the gun to perform well even under adverse conditions such as water, mud, and sand. The MP-5's 30-round, steel magazine has a modern two-position feed. The exterior finish on the MP-5 is a matte-black baked enamel. The submachine gun is 17 ¾ inches long and is outfitted with a body sling, which allows the tactical officer freedom of hand movement should it become necessary to make the transition from MP-5 to backup sidearm.

The trigger mechanism is integrated in the grip of the MP-5. There are three selector lever positions on the MP-5: safe, single, and sustained. When the selector lever is set on the white bullet in the rectangular box with an X over it, the weapon is on safe; it will not fire when the trigger is engaged. When the selector lever is put on the red bullet in the rectangular box, a single cartridge is fired per trigger pull. When the selector lever is set to the seven bullets in the long box open at the front end, pulling the trigger results in rapid and sustained fire until the trigger is released.

To enhance performance in low-light conditions, D Platoon equips their MP-5s with SureFire model 628 tactical lights. The 628 tactical light is powered by a 6-volt lithium battery that produces 15,000 candle power. Using the light in short bursts, the tactical officer can make positive close-range target discrimination and acquisition.

Winchester 9mm 115-Grain Silver Tip Hollow-Point Cartridge



Introduced in 1978, the Silver Tip hollow-point cartridge offers maximum loading within established industry safe-pressure levels. The bullet's projectile design produces optimum penetration while eliminating weight loss and fragmentation. The cartridge is

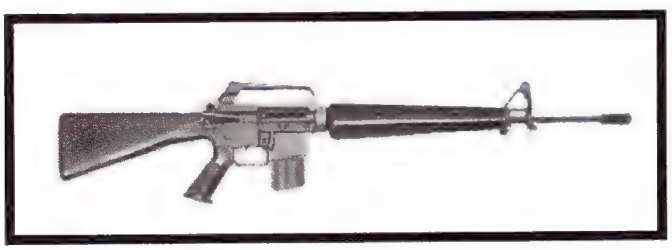
designed to expand and fragment upon impact, reducing the chance of ricochet.

Muzzle velocity of the Silver Tip is 1,225 feet per second. At 50 yards, its velocity is 1,095 feet per second; at 100 yards, the Silver Tip's velocity is 1,007 feet per second. Muzzle energy is 383 foot-pounds. At 50 yards, its energy is 306 foot-pounds; at 100 yards, it's 259 foot-pounds.

Winchester 9mm 115-Grain Full-Metal Jacket Cartridge

The Winchester 9mm 115-grain cartridge is designed to penetrate, not expand, on point of impact. The cartridge utilizes special jacket materials for maximum efficiency. This lead alloy cartridge is particularly useful when the situation calls for shooting through various media such as glass.

Muzzle velocity is 1,155 feet per second. At 50 yards, the velocity is 1,047 feet per second-at 100 yards, cartridge velocity is 971 feet per second. Muzzle energy of the full-metal jacket is 341 foot-pounds. At 50 yards, its energy is 280 foot-pounds; at 100 yards, the energy is 241 foot-pounds.



M-16

Originally designed by Eugene Stoner as the AR-15, the M-16 came into existence after Colt purchased the production rights and began manufacturing a select-fire version of the weapon for the U.S. Military. The M-16's gas operation system siphons propellant gases directly back to the gun's bolt carrier. This system, as opposed to a rod or piston system attached above or below the barrel, results in minimal barrel vibration.

The M-16 has a well-developed, modular system lending itself to easy upgrade and modification. The magazine well can hold 5, 20, and 30-round magazines. LAPD chooses to use the 20-round magazine. The select-fire M-16 is chambered for the Remington .223. Empty, the M-16 weighs just under 8 pounds. The barrel length is 20 inches long for an overall weapon length of 39 inches.

The Benelli Super-90 12-Gauge Semi-Automatic Shotgun

The Benelli Super-90 has rifle-type sights on a 19 ¾-inch barrel with a cylinder-bore choke and a seven-round magazine. Each tactical officer in D Platoon is issued a Super-90 and is required to meet qualification specifications with the weapon. While other members of the entry team carry the MP-5, the rear guard position is assigned the Benelli shotgun.

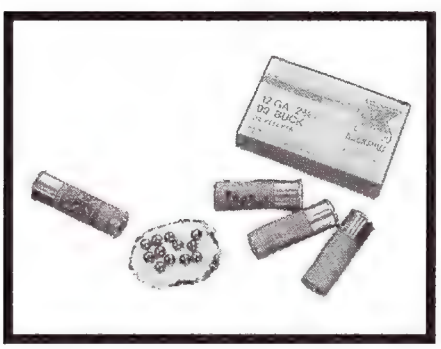
The Super-90's magazine tube will accommodate seven 2¾-inch 12-gauge shotgun shells or six 3-inch Magnum shells. D Platoon issues Winchester Western 12-gauge 00 buckshot or Winchester 12-gauge 1-ounce slugs. A shotgun carrier holds six rounds and attaches to the left side of the receiver without any alterations to the gun. Considered the fastest shotgun made; the Super-90 can fire five rounds is less than one second.

A shell in the chamber can be removed or replaced without emptying the entire magazine. An inappropriate load can be quickly substituted for a more suitable ammunition type, increasing the shotgun's tactical flexibility.

The shotgun's dull black, bead-blasted anodized finish makes it nonreflective. The butt stock and forearm are made of black high-impact polymer, and checkering has been molded into each side of the forearm and grip area to enhance handling. The butt stock also features a solid-rubber recoil pad.

To counter low-light situations, LAPD mounts the SureFire Responder flashlight assembly to the Benelli shotgun. The SureFire dedicated shotgun housing includes a fingertip-control pressure switch at the foreend of the barrel. With his front hand cradling the barrel, a tactical officer can instantaneously illuminate the subject without jeopardizing his grip on the weapon.

12-Gauge Magnum Ranger 00 Buckshot

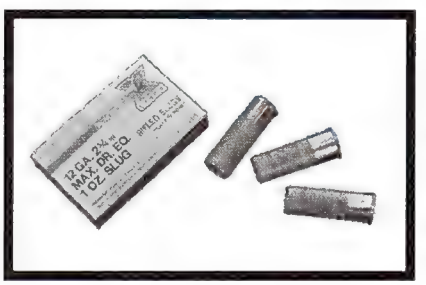


Winchester's law enforcement–only buckshot provides maximum penetration and a tight shot pattern, necessary considerations for today's tactical forces. The shell length of the 12-pellet-load Magnum Ranger is 2 ¾-inches long. The diameter of each pellet is .32 inches.

At 25 yards, the 12-pellet load furnishes a 100 percent pattern in a 20-inch circle. At 40 yards, the 12-pellet load furnishes a 75 percent pattern in a 30-inch circle. This means all 12 pellets will hit within a 20-inch circle at 25 yards, and 7 of 12 pellets will hit within a 30-inch circle at 40 yards.

At sea level, with gun muzzle held at its optimum, the Magnum Ranger's maximum horizontal distance to first point of impact is 1,830 feet. The muzzle velocity rate of the Magnum Ranger is 1,174 feet per second, while the muzzle load energy is 1,928 foot-pounds. Individual pellet muzzle energy is 160.7 foot-pounds.

Winchester 12 Gauge 2 ¾-Inch 1-Ounce Rifled-Slug Shotgun Shell



D Platoon utilizes these slugs when it is necessary to breach a barricaded door or penetrate car exteriors.

Muzzle velocity of the 1-ounce slug is 1,552 feet per second. At 3 feet, the velocity of this shotgun slug is 1,600 feet per second, while the load energy is 2,245 foot-pounds.

The 1-ounce slug's maximum horizontal distance to first point of impact is 2,450 feet. At 15 yards, the extreme spread accuracy of the one-ounce slug is .83 inches. At 25 yards, it is 1.34 inches; at 50 yards, it is 1.92 inches.

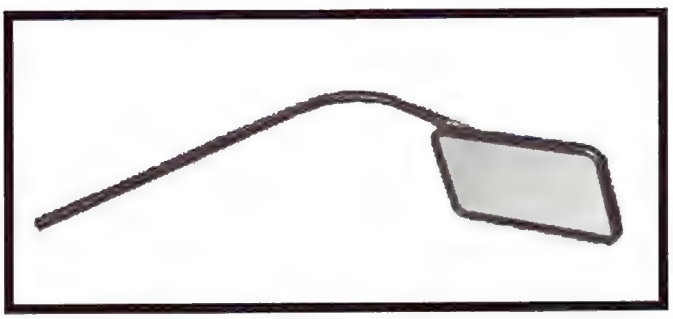
Defense Technology Number 25 Distraction Device (Flashbang)

Noise distraction devices, also known as flashbangs, produce a loud noise accompanied by a brilliant flash when discharged. D Platoon uses them to disorient a suspect's or draw his attention away from an entry port.

The Def Tech distraction device has a 1.5-second delay between detonation and discharge. When discharged, the sound level of the

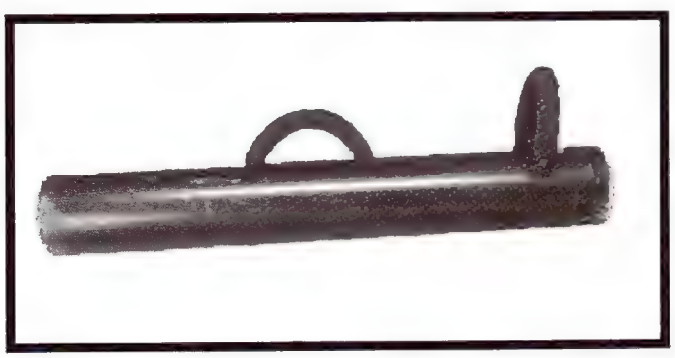
flashbang is 174.5 dBs at five feet; the light level is 2,420,000 candela. The duration of the sight and sound explosion is nine milliseconds.

Noise distraction devices are Class C explosives. However, the Def Tech flashbang is a nonejecting submunition; the energy is directed out the top and the bottom of the device. This design greatly minimizes physical damage. To protect the distraction device from live-fire hits, the charge is housed in a nonreflective, gun-steel body.



Mirror

D Platoon armorers make the 180-degree mirror used by SWAT scouts out of 1/8-inch mirrored plastic and extensible paint handles. SWAT scouts use mirrors to check out a location prior to entry.



Battering Ram

The one-man, hand-held battering rams used by D Platoon are 3 feet long and weigh 30 pounds.

LASH Two-Way Radio Headset

LASH stands for Los Angeles SWAT Headset. It allows the tactical officer to communicate in a whisper and under high-noise conditions. Using a LASH, the tactical officer is able to monitor a receive signal that is inaudible at a distance of 24 inches.

The headset consists of a throat-microphone assembly on a breakaway elastic neck strap. The strap contains two modules in an assembly that cradles the officer's windpipe. One of the modules contains a dedicated throat mike transducer. The throat mike picks up vibrations from the voice box only. This allows the transmission of a whisper at the same level as normal speech. The microphone's insensitivity to ambient sound makes it ideal for use in a high-noise environment.

The other module contains a 50-ohm speaker with a coiled tube terminated in a nonoccluding ear mold, which provides the tactical officer unobstructed hearing while allowing him to monitor a radio signal and listen to peripheral sound with the same ear. This configuration allows the tactical officer to communicate without the threat of detection. The "press to talk" switch on the chest prevents accidental radio transmissions.

Though the LASH two-way radio headset is used by Army special forces, Navy Seals and others, it was originally designed for LAPD SWAT.

Load-Bearing Tactical Vest

The tactical vest provides the SWAT officer with two advantages: ballistic protection against high-velocity ammunition and the ability to strategically position tactical equipment. The first ballistic vests were made of nylon and were introduced in the 1960s by the U.S. military. In the early 1970s, Dupont introduced Kevlar, which is five times stronger than steel and is an excellent material for ballistic protection. In 1985, Allied Signal developed Spectra fiber, which is 10 times stronger than steel but so light it floats.

Aramid fabrics were soon developed by bundling many thin fibers together to form a yarn and then tightly weaving the yarn together. When struck by a bullet, aramid fabrics absorb the impact energy and disperse it to other fibers in the weave. Today, due to years of research and development, a myriad of materials and technologies are used to create ballistic protection from threats ranging from small-caliber pistols to high-capacity submachine guns.

The vest has a Nomex fire-retardant outer shell. Above the officer's name is a reinforced downed-officer rescue strap. The strap is used to pull an injured officer to safety. The tactical officer's LASH radio is mounted on his shoulder in a detachable pouch. The pouch accommodates the headset wiring harness located on the radio. The cabled, chest-mounted press-to-talk switch with front surface action operates the two-way radio. The detachable pouches accommodate different magazine sizes. The tactical vests used by D Platoon meet the certification standards of the National Institute of Justice.

Tactical Utility Belt and Holster

D Platoon uses a versatile, belt-and-holster system designed to provide easy access to secured gear. Its configuration is designed around an adjustable hanger system. The utility belt is constructed of ballistic nylon and features a Velcro front fastening.

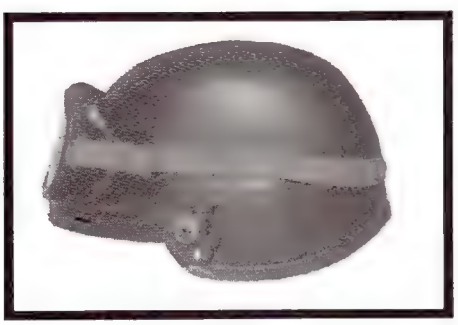
The .45 holster is made of formed leather and has a nylon leg strap. The leg strap is secured around the tactical officer's leg to stabilize and eliminate any forward or backward holster shifting during movement. D-ring and adjustable ballistic-nylon strap configurations allow the tactical officer equipment carrying options. The ballistic-nylon gas mask pouch also has adjustable Velcro fastening straps for flexible configuration.

The SF-10 Avon Gas Mask

D Platoon officers wear their department-issued gas masks anytime CS gas is deployed or when they encounter foreign airborne materials. On tactical maneuvers requiring the use of gas grenades, D Platoon uses the SF-10 Avon Gas Mask. During riot conditions, D Platoon uses a standard military gas mask that meets the Nuclear, Biological, Chemical (NBC) warfare requirements

The large oval eye pieces provide maximum visibility for the wearer. The changeable canister-type filter found on the SF-10 ensures that breathability is kept at an optimum. An exhalation valve makes for easier breathing, and also assists in providing for clear communication. However, gas masks do not provide lung protection in case of fire.

Ballistic Helmet



D Platoon officers are issued military-style ballistic helmets during extreme conditions such as riots and continuous-fire suspect encounters. The decision to wear helmets is made on a case-by-case basis by the element leader and the supervising sergeant.

The ballistic helmets used by D Platoon are constructed of Kevlar and are outfitted to accept face shields. Face shields provide maximum facial protection while affording unobstructed vision.

Nomex Hood

The hood is made of fire-retardant Nomex. Wearing hoods offers protection to the officer's face and neck when encountering chemical and gas explosions.

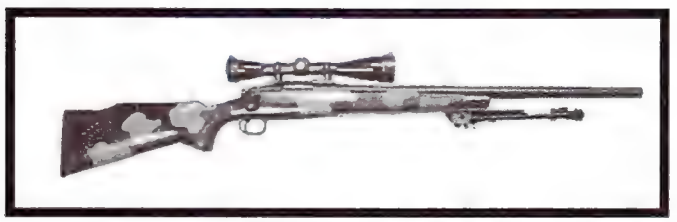
Nomex Gloves

The gauntlet-style gloves worn by D Platoon officers are also made of Nomex. Wearing fire-retardant gloves offers protection to the officers' hands and wrists when encountering chemical and gas explosions.

KV-4 Rectangular Ballistic Shield

Ballistic shields are carried by the scout or by the first officer in an entry team. They are constructed with bullet-resistant glazing and provide level 111A protection. The shield is finished with a durable antiglare fabric. The view port is 4½ by 7½ inches. A vertical grab handle permits easy carrying and maneuverability.

SNIPER GEAR GALLERY



Robar SR60 .308 Sniper Rifle

The Robar SR60 .308 Sniper Rifle is engineered in Phoenix by Robar Companies. It has been designed to engage targets up to 600 yards away, although most police snipers would not fire at a target beyond 400 yards. According to FBI statistics, the national law enforcement average for target engagement is 71 yards. The SR60 .308 sniper rifle is used by various law enforcement agencies throughout North America, including Phoenix Police Department SWAT and the Arizona Department of Public Safety.

The SR60's barrel component is a Schneider stainless-steel match-grade barrel with Robar's exclusive contour. The barrel has a match-grade chamber and a crown with a muzzle diameter of approximately .880 inches. The barrel channel has a sling swivel stud for bipod attachment. D Platoon uses the Harris bipod, which allows the rifle to swivel five degrees to the left or right once the bipod has been planted. The Harris bipod features a 45-degree cant adjustment that is friction adjustable and has a 9- to 13-inch gross elevation adjustment and locking legs.

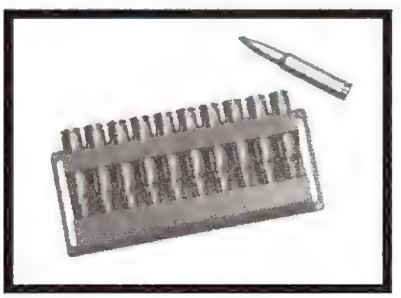
The SR60 uses the same bolt action as a Remington 700 BDL. It is accurately machined, ground, and lapped. The rifle is calibrated for a .308 load. The trigger is a modified Remington trigger with a recommended release of 2 ½ pounds.

The SR60 has an ambidextrous, Monte Carlo, fiberglass McMillian stock completely bedded with aluminum pillars and a free-floating barrel channel. D Platoon chooses to have their rifles finished in urban camouflage.

D Platoon outfits its long rifles with 10-power Leupold scopes. Leupold scopes feature 30mm solid-tube construction, ¼ minute-of-angle (MOA) click windage and elevation adjustments, and a duplex reticle with the Ultra fixed Mil-Dot system.

The Bullet Drop Compensator (BDC) raises or lowers the scope's reticle so that elevation is taken into account, enabling the shooter to aim by centering the crosshairs on the target. Without compensation, the shooter would have to aim high or low to adjust for the target's elevation. The BDC features audible and tactile feedback from the one MOA divisions and the ¼ MOA click stops.

Federal .308 Match Ammunition



Considered the most accurate commercial match ammunition in the world, Federal .308 Match is used by more law enforcement sharpshooters than any other .308 load. Federal has high standards and manufactures the .308 to ensure consistent performance. Features include specially blended powders, matched primers, meticulously machined brass, and the 168-grain Sierra MatchKing bullet.

The Sierra 168-grain MatchKing bullet is manufactured to very close tolerances. An entire lot will be rejected if a random sample fails to achieve a 5-shot 100-yard grouping of no greater than ¼ MOA using a machine rest. The MatchKing bullet is not a hollow point, although there is a small depression in the top of the bullet. The depression is a by-product of the manufacturing process Sierra employs and is not designed for impact expansion. The boat tail at the base of the bullet is designed to retain more velocity due to an aerodynamic shape that both decreases wind resistance and reduces drag.

Match-grade ammo is ammunition in which all component parts are made at the same time out of the same batch: all primers are made on the same machine on the same day and most likely by the same person. Gun powder is from the same batch, loaded by the same machine. Brass is from the same stock and is shaped, sized, and finished on the same day. The result is ammunition where one cartridge is as similar to the next as is humanly possible. These similar loads are then sold in increments known as lots. As is standard with all law enforcement agencies, D Platoon purchases its .308 ammunition in the same lot for both training and real world situations, thus supporting the adage: "As you train, so shall you fight."

When leaving the muzzle, the .308 exits at a velocity of 2,600 feet per second. This velocity is sustained for long distances due to the combination of gun powder, aerodynamics, and bullet weight. At 200 yards, velocity of the .308 is 2,240 feet per second. At 400 yards, it's 1,910 feet per second; at 600 yards, it's 1,610 feet per second. This means that at a distance of 200 yards, the energy hitting a target is 1,870 foot-pounds. At 400 yards, the energy is 1,355 foot-pound; at 600 yards, it's 970 foot-pounds.

Gas Grenade Launcher

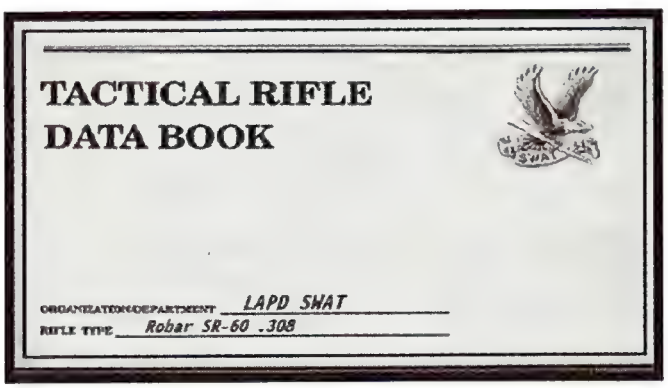
The Federal Laboratories 38mm breach-loading, single-shot, gas grenade launcher is 29 inches long with a 12-inch barrel and a wood stock.

Liquid Gas Round

The LAPD uses a liquid gas round called the Ferret Barricade Penetrating Cartridge. This CS round is for police use only and is deployed when attempting to disengage a barricaded suspect.

CS Gas Grenade

Federal Lab manufactures the CS gas grenades used by D Platoon. All officers in D Platoon are trained to deploy gas under extreme conditions only. If a sniper is present, that duty will generally fall to him.



Tactical Rifle Data Book (Dope Book)

The Dope Book is the sharpshooter's record of every bullet fired through his rifle during training. Information recorded in the Dope Book includes the cold-barrel shot, the total number of bullets fired through the rifle, weather and wind conditions for each day of training, and the lot and type of ammunition used.

Ghillie Suit

Though police snipers normally operate in urban environments, they still require camouflage to avoid detection. Where foliage is present, the Ghillie suit can be most effective. Ghillie suits were originally designed by Scottish gamekeepers in an attempt to capture poachers. The suits saw their first military use by the British Lovat Scout snipers during counter-sniper offensives in World War I.

Ghillie suits are constructed by adding hundreds of burlap and rope strips to existing garments such as two-piece utilities or jumpsuits. Generally only the back of the suit is outfitted with strips of material. The front is kept clean of excess material to facilitate low crawling.

Although Ghillie suits are commercially manufactured and can be store-bought, most police snipers prefer to construct their own, thus ensuring quality and maximum camouflage protection for their geographic location. A sniper handcrafts his Ghillie suit to his own specifications. First, he'll attach two-inch netting to the garment. Then he'll sew different colored strips of burlap to the netting. The sniper selects different textures and colors to blend into any surrounding environment, adding rope, leaves, grass or twigs while in the field.

To avoid a hard silhouette, a sniper will often forego his helmet, wearing a soft Woodland camouflage hat instead.

Nomex Gloves

Snipers generally do not wear their gloves when on their sniper rifles. If a sniper opts to wear gloves when engaging a target, he will often cut the glove finger off for his trigger finger.

See the Assaulter Gear Gallery section for details on all sniper equipment not listed here.

Chapter Two

Call-Ups

This chapter presents one possible path through the crisis scenarios you'll encounter. Each plot line has been delineated to show the shortest path from the alert message to mission accomplished. Must-do actions are called out in bold. Stay on Target sidebars offer additional useful tips about gameplay. Though these walk-throughs present one path through this game, there are other ways to accomplish the same things. Therefore, this section is meant to be used as a reference to help you through the tough areas.

Stay on Target

Scenes shift from first to third-person depending on the situation. When playing the game in a first-person perspective, your fellow officers act in "real time." This means that if you're in a room and your partner leaves, he will continue his actions whether you go with him or not. In other words, if you follow immediately behind him, you'll see him enter the room and begin his suspect sweep. However, if you wait a few minutes and then come after him, you may see the suspect gunning down your partner because you weren't there in time to cover him.

Lucy Long

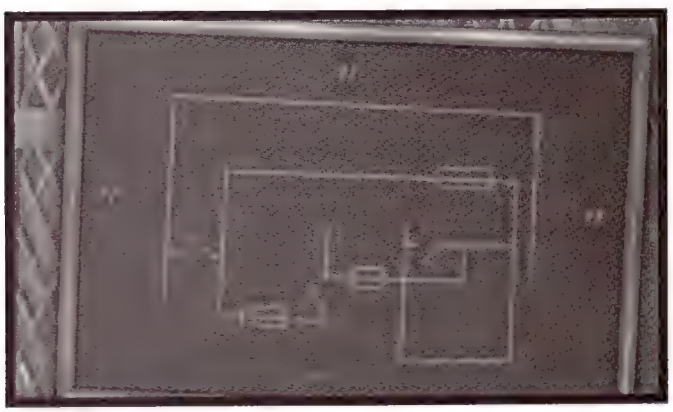
BRIEFING

In the Alert Message, the dispatcher announces, "Barricaded female. North Hollywood area. 339 Westcott Ave. Shots fired. Code 3."

When you arrive at the scene, you hear Sgt. Pruett addressing the suspect, Lucy Long, through a bullhorn. He asks her to pick up her telephone and talk to him. Then you see Pacmeyer talking to Herbert and Katie Long. As they talk, you learn that Herbert is Lucy's husband and Katie is her daughter. From what they tell you, it sounds like old Lucy is mentally unbalanced.

Be sure to always save your game after the introductory interviews and briefing. You might want to later restore scenarios at the point at which the action starts.

Pacmeyer asks you to question the Longs' neighbor. **Click on the officers and the neighbor** to get their statements. **Keep clicking on them** until they have nothing new to tell you. Officers Denton, Rhea, and Tello are standing by the SWAT van. Go talk to them. Full of good advice, aren't they?



Eventually Rooker calls everyone together for the briefing, drawing your attention to the greaseboard showing the layout of the Longs' house. He tells you what he knows, emphasizing that SWAT's goal is to help Lucy, not to kill her. At this point, the two possible plot lines diverge.

Make it a habit to use the Quick Select (keyboard) keys to directly access the Inventory, Hand Signals, and Slice Pie room entry technique. The time you save may be critical.

Inventory:	**1**
Hand Signals:	**2**
Slice Pie:	**3**

LUCY LONG PLOT 1: REAR CONTAINMENT

Rooker assigns you to the position of rear containment with Wixell. This means that you will watch side three, the back of the house. If you have any additional questions, click on Rooker and he'll provide more information.

Suddenly, you hear gunshots. Rooker says, "Sounds like the fat's in the fire!" and the team moves out, crossing the street and lining up on the driveway. Pacmeyer orders the MP-5s put on full auto. **Load the MP-5** while it's in the inventory. Then **select it** and use the selector lever to **put the weapon on sustained fire**. Pacmeyer gives the order to initiate. Your teammates start to go to their positions. When Rooker tells you to get moving, **click the forward arrow** to move up.

The default arrow changes into a direction arrow when you move it to the edge of the screen. Only the direction arrows allow you to move forward, backward, or to the sides. The default arrow in and of itself does not move you forward.

You see the three-member entry team running to the front door with a fourth man moving to cover them from behind a tree.

The LASH headset allows communication between team members without the risk of being overheard by the suspect. To call up the assaulter LASH interface, click on the LASH box in the lower right corner of the icon bar. Highlight words by clicking on them, then click Transmit to send the message and return to the game.

Pacmeyer signals for you to move around the side of the house. Remember, you have to be careful getting into position. **Select the mirror** from Inventory. **Click the mirror on the left side of the house**. Look in the mirror. You will see one of three things: no Lucy, Lucy with a gun, or Lucy without her gun. The walk-throughs for each case continue in the following three sections. Pick which one applies to your game.

Lucy Long Not in Mirror

If Lucy does not appear when you mirror the side of the house, **slice the pie left** to proceed. **Click the left arrow, then click the forward arrow** to move up to the gate. The gate is locked. Use the LASH to ask for **Ram Side One Two**. Denton and the ram man respond and bash down the gate. Denton slices the pie on the door and signals OK.

Slicing the pie is a crucial tactical move in which you round a corner in increments. To slice the pie, hit 3 to access the Slice Pie interface panel. Click on Slice Pie. The cursor changes into a three-piece pie. When you move the slice-pie cursor over a "sliceable" corner or door, two pieces of pie disappear, leaving a piece that resembles an arrow pointing in the direction of possible movement. Click whenever you get this one-piece cursor to slice the pie at that location. Be aware that, as a matter of course, you or a teammate should mirror every door and corner before you slice the pie around it.

To continue on to the back of the house, **click the mirror** on the wall. You see that the back yard is clear. **Slice the pie right** on the corner. **Click the mirror** on the corner of the house. You see Lucy cowering in the corner. **Slice the pie right** to confront her. She hides behind a tree. **Click the default arrow** on her to identify yourself as a police officer. When she doesn't respond, **click the default arrow** on her again. Don't you just love a happy ending?

Lucy Long in Mirror with Gun

If the mirror shows Lucy to be armed, first **use the Suspect hand signal** on the trees around the corner (side two) to inform Denton of Lucy's presence at the one-two corner. Denton uses the Hold hand signal, then motions for you to cover him. Put the mirror back in inventory, then **select your MP-5**. Train the weapon cursor on Lucy and wait.

Slicing the pie around the corner, Denton yells for Lucy to put down the gun. In this worst-case scenario, you must use good judgment and choose the lesser of several evils. When Lucy raises her gun to shoot Denton, she presents a definite threat. In order

If you pay a repeat visit to any call-up (except the Eastman Element Leader scenario) you can hit the spacebar to bypass the briefing.

to save your fellow officer's life, you must **shoot Lucy** before she can fire. In the debriefing with the lieutenant and Rooker, you are informed that there will be an investigation. However, you did the only thing possible under the circumstances and so should be reinstated to active duty after the investigation clears your name. When given the choice to Replay, Restore, or go to the Map, **select Map** to continue the game.

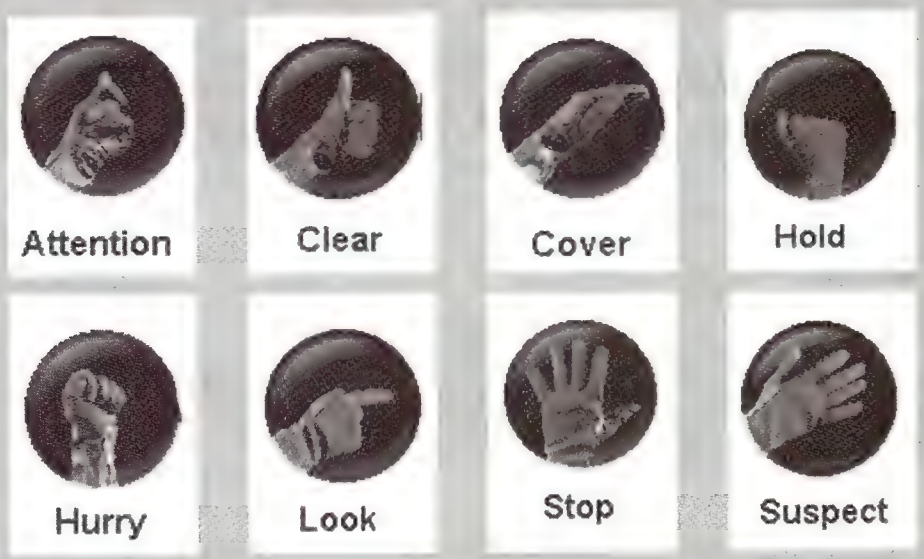
Lucy Long in Mirror, No Gun

If Lucy appears in the mirror apparently unarmed, **slice the pie left** to approach her. You hear a gate slam as she runs away from you. This scenario now merges with the Lucy Long Not in Mirror scenario. Start by **slicing the pie left** on the corner of the house, then follow the hints for the Not in Mirror scenario for a successful conclusion.

As an alternative path, try clicking the suspect hand signal on the 1/2 corner after you see Lucy. Cover Denton as he convinces Lucy to surrender. Be advised, however, that though this path is successful, the next call-up will return you to this scenario.

When you're in between call-ups you're free to continue your training at the firing ranges. Return to Metro every so often for status updates. If the call-ups aren't occurring fast enough for you, go to the control panel and set the call-ups slider to the max.

To Quick Select the Hand Signals panel, type 2 on the keyboard. The hand signals allow you to communicate with your team during a call-up. When you click on one of the hand signals, the Information button and the cursor change to represent the selected hand signal. Click the hand signal cursor on the screen and you will see animation of that hand signal within the Information button area. The eight hand signals are:



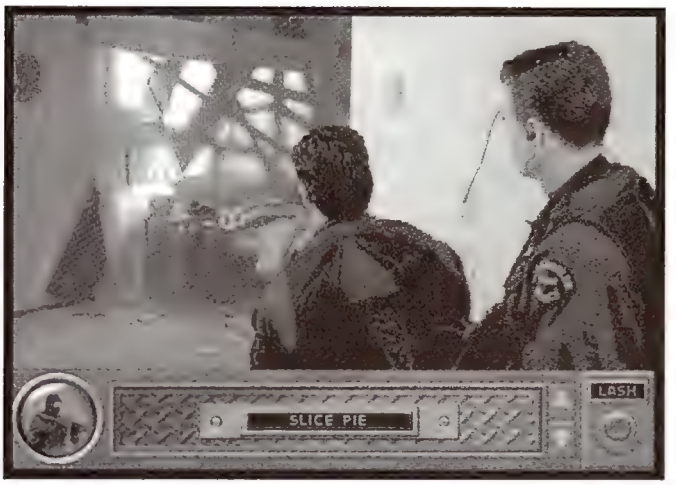
LUCY LONG PLOT 2: REAR GUARD, ENTRY TEAM

Rooker assigns you to the entry team. You'll be rear guard, Carmichael is scout, and Pacmeyer will lead. Rhea and Denton are providing rear containment. When Rooker is done talking, click on him if you want to ask him a question. If you have any questions about your gear, click the inventory item on Rooker and he'll tell you about that item's function.

Suddenly, you hear gunshots. Rooker says, "Sounds like the fat's in the fire!" and the team moves out, crossing the driveway and running toward the door. Pacmeyer tells Carmichael via LASH to try the door. Carmichael opens the door with a key.

Pacmeyer yells, "Ready, initiate!" There are several ways you can enter the house. For this walk-through, **slice the pie right** on the door jam. You go into the living room where Carmichael is mirroring the far door. Pacmeyer signals for you to cover the scout. **Click the forward arrow** to move up on Carmichael.

To follow the team into the kitchen, **slice the pie right** on the door jam. Then **slice the pie right** on the kitchen cabinets to move deeper into the room. Pacmeyer calls for a trailer on the kitchen door. When he signals you to cover Carmichael, you'll automatically move up behind him. Carmichael motions that the area is clear.



Now you're ready to move into the bedroom. **Slice the pie on the right wall**. Pacmeyer walks into the bedroom. He slices the pie on the bed, then signals for you to cover the door. **Keep your sights on the door and wait**. You see a trailer at the living room entrance and one in the kitchen.

The scout walks toward the bathroom. He checks the bathroom door. It's open. Carmichael mirrors the door then quickly pulls the mirror back. He signals "Suspect" to the rest of the entry team. Pacmeyer tells Carmichael to pull back and then instructs you to move in. **Slice the pie on the left side of the bathroom door**, then **slice right** to edge out further into the bathroom.

You see a shadow lurking behind the shower curtain. It's Lucy! **Click the suspect hand signal** on the shower curtain. Lucy looks out and puts her hand over her mouth. Pacmeyer talks to Lucy, asking her to surrender. She nods and puts out her hand. Congratulations. You've successfully completed this scenario.

Save your game, then try using the shotgun on the shower curtain — it's nice and gory.

Kipland

In the Alert Message, the dispatcher announces, "Officer down. 612 Haley, Central area. Code 3." There are two possible plot lines for the Kipland scenario. The first plot has a complete introduction and briefing sequence. The second plot cuts right to a shorter briefing with a rapid deployment.

INTRODUCTION

After the alert, you are taken out to the scene. In plot one, you see Sgt. Rooker talking to Saunders and Tello. He directs them to take the high-ground position to cover the entry team. Rooker apprises you of the situation. Two officers responding to a Code 30 Adam (a silent burglar alarm) at a warehouse were suddenly fired upon. The suspect, possibly a warehousemen, has barricaded himself inside.

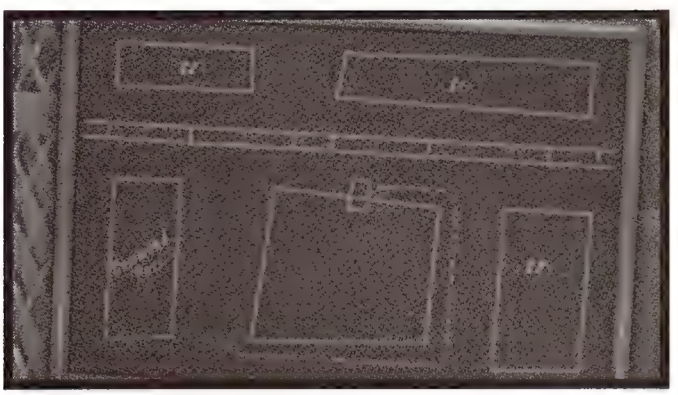
Rooker leaves you to continue questioning the warehouse owner. **Click the arrow on Mrs. Schneibly** to ask her questions. Listen to the information she provides, clicking on her each time she concludes a statement. When she leaves to use her car phone, **use the left directional arrow** to move into the scene with the SWAT van.

When you're a SWAT officer, there's no room for mistakes. In this scenario, for example, these errors could result in the following retribution:

- **Fire your weapon randomly: The scenario stops and you return to Metro where you get chewed out for bad tactics.**
- **Throw the flashbang without authorization: The scenario ends (sometimes disastrously) and you get chewed out.**
- **Move ahead of the team before the room is clear: Either the suspect jumps out and shoots you or you get chewed out for compromising the situation.**
- **Let the team get ahead of you: People get shot. You get yelled at and suspended for using bad judgment.**
- **Shoot your fellow officers or the hostage: Go directly to jail. Do not pass Go, do not collect $200.**
- **Fire your weapon in the suspect's vicinity: This triggers a sudden attack by the suspect. You are killed (you may, however, choose to be reincarnated to replay the scenario).**

Click on Rooker to make your report. Then **click on either Officer Tobin or Pacmeyer** to get an eyewitness account of what happened. **Click on the SWAT van**. Click on the officers inside the SWAT van to initiate conversation with them. Then click on the greaseboard to see a close-up of the layout. To exit the close-up, click the left or right directional arrow.

BRIEFING AND ENTRY



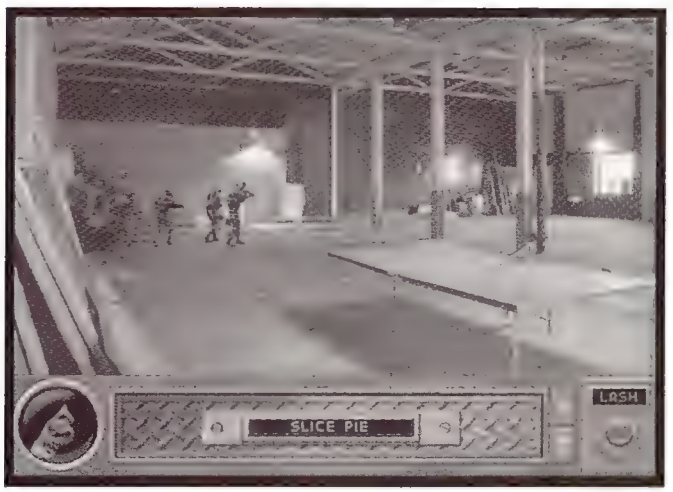
In both the first and second plot lines Rooker calls the briefing. Rooker states the situation using the greaseboard. Suddenly you hear gunfire. Pacmeyer rapidly concludes the briefing, assigning you to the entry team and issuing you the M-16 for range. You leave the SWAT van and return to the outside of the warehouse.

Notice that the Inventory box now contains everything you need for this mission: M-16, Colt .45, flashbangs, gas mask, and appropriate magazines. Carmichael unlocks the warehouse door. Denton and Carmichael enter. When you get player control, **slice the pie left**. Move quickly — you only have three seconds. Note that you've automatically been provided with the M-16 cursor. At this point the two plots diverge.

KIPLAND PLOT 1

Entering this room (referred to as the "white room"), you see Pacmeyer and Wixell clearing the far left area. Save your game. Carmichael mirrors under the furniture and signals "clear." When Pacmeyer signals you to provide cover, **click the forward arrow** to do so. After telling Carmichael to mirror the door, Pacmeyer tells you to move up. *Do not* use the forward arrow to do so. **Slice the pie right** to move up on the door.

Carmichael, Denton, and Rhea approach the big door leading into the next room. Carmichael mirrors the door. When Carmichael has checked out the next room, Pacmeyer tells you to cover left. Wait until the rest of your team has made entry, then **slice the pie left** to move into the next room.



The scene changes to the blue room, left wall. Save your game. Hold your position until Pacmeyer signals you to move up and provide cover. **Click the forward arrow,** then cover the pile of junk against the wall. After Carmichael clears the wood, Pacmeyer signals you to cover them to the right. **Click the right arrow**. Carmichael, Denton, and Pacmeyer enter and sweep the area. Pacmeyer again signals you to cover right. **Click the right arrow again**.

Pacmeyer signals everyone to hold, then he tells you to cover the corner. Carmichael, Denton, and Pacmeyer walk cautiously toward the corner. **Click the right arrow** to move in. Suddenly, Rhea yells that the mission has been compromised at the right stairwell. The team turns to face the danger. You see Allen holding Martinez with a gun to his head. When the opportunity presents itself, **take your best shot at Allen**. Be careful not to hit the hostage. If you hit the suspect, the situation is over. After the debriefing, select the map option to continue the mission.

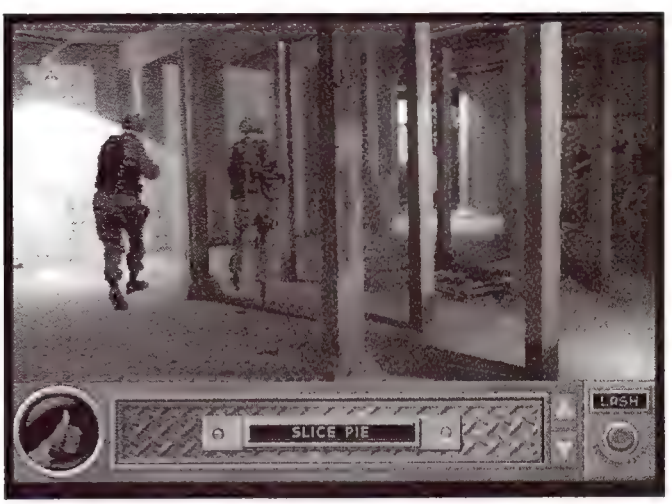
KIPLAND PLOT 2

Once inside the white room, **click the right arrow** and watch the team clear the pile of furniture. After the LASH communication "Entry team in position," Pacmeyer will ask where his coverage is. **Click the left arrow**. You should now be looking through the doorway into the blue room. Wait for the flashbang, then **slice the pie right**. Save your game now, because it gets pretty tricky from this point.

Denton and Rhea set up on the stairwell. Pacmeyer, Carmichael, and Wixell come in from the left and

clear the area. Pacmeyer tells you to move up. **Click the forward arrow** to do so. Pacmeyer tell you to move up again. **Click the forward arrow again**. Pacmeyer says to prepare for another dynamic entry. You're to go in third after Rhea throws a flashbang. The flashbang explodes. Denton and Carmichael head down the stairs. **Click the down arrow** on the stairs to follow them.

At the bottom of the stairs, you see a room with a big pit. Now would be a good time to save your game. Denton and Wixell clear the pit while Carmichael covers down range. After the pit is cleared, Pacmeyer tells everyone to move forward together. **Click the forward arrow** to go with Wixell. He turns around when he gets to the second pillar and urges you to get moving. **Click the forward arrow** again.

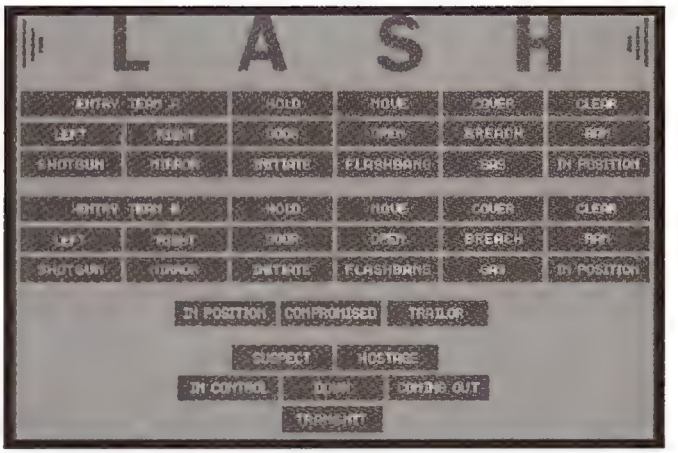


Carmichael reports that he sees lights strung on a caged storage area. **Click the forward arrow** when Wixell tells you to come on. You see an empty hallway. Save your game. Pacmeyer enters and tells you and Wixell to move to the door. On his mark, **click the forward arrow**. Pacmeyer motions to hold at the doorway. He tells you to go to the left after Denton throws the flashbang. To do so, **slice the pie left** on the doorway just after the explosion.

Pacmeyer tells you to move left. **Click the left arrow**. Wixell moves to the left in front of you. A man comes out from behind a pillar to the left. Don't shoot, it's the hostage! Suddenly, the suspect jumps from the rafters onto the hot water tank. Pacmeyer trains his weapon on the suspect. Immediately **aim your M-16 at the suspect** and keep it there. Keep him covered until Pacmeyer talks him into surrendering. The mission has been successfully concluded.

Now that you've been promoted to element leader, you must use the LASH to transmit commands to the entry team. Unlike the assaulter LASH, the element leader LASH is composed of four sections, plus the Transmit button. The upper two sections allow you to give Entry Team A one command and Entry Team B a different command. The third section consists of the three buttons labeled In Position, Compromised, and Trailer. You can activate only one of these buttons per message. The fourth section allows you to inform your team of suspect and hostage activity. Select either Suspect or Hostage and then click one of the three boxes directly below: In Control, Down, or Coming Out. When you have finished forming your messages, click Transmit to send them to your element. Since Carmichael, the scout, and Denton, the rear guard, are in Team A, you will address commands such as Open Door and Breach Door to Team A.

Eastman



EASTMAN: ELEMENT LEADER

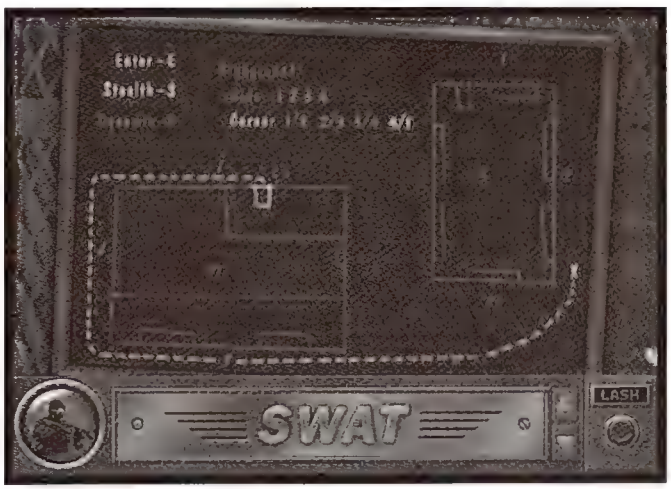
As the element leader for the assault team, you make all the decisions regarding your team's movement during the call-up. Using the LASH interface, construct messages to communicate information and directions to the team and supervising officers. Think quickly because you only have a certain amount of time to appraise the situation, determine the best course of action, and transmit your instructions. Remember, the element leader is responsible for the men under his command. They depend upon the perspicacity of his orders for their very lives.

In the Alert Message, the dispatcher announces, "Terrorists. Hostage involved. Shots fired. 18635 San Pedro. Corner of San Pedro and Imperial."

When you get to the scene, you see Rooker standing outside of the SWAT van. He briefs you on the situation at hand. A group called the Northern Forty Militia has taken over Eastman Enterprises. The terrorists are holding Ron Eastman, the owner, as a hostage. Rooker is called away, and the accountant arrives.

There is only one way to set up a successful Eastman scenario. When making your entry decisions on the greaseboard, go with a side one entrance using stealth tactics with high-ground coverage on the 4/1 corner. Otherwise, you may not even live to regret it. For a cheat sheet of element leader instructions see page 53.

Click on her to ask questions until she walks away. Sgt. Ross introduces you to Andy Durham, the factory foreman. Click on him to question him about the layout of the building.



After Andy leaves, Rooker gathers the team for the briefing. The terrorists are threatening to blow up the building in two hours so you'll have to work fast. Rooker asks for your input. **Click on Rooker** to tell the team about the Eastman employees. Rooker finishes the briefing then asks where you think the team should enter the building. This decision is an important one and will determine your tactical strategy. The two possible entrances flash. **Click on one of the flashing areas** to select your point of entry. To confirm your decision, **click on Enter**. **Click on either Stealth or Dynamic**. Then Rooker asks about high-ground coverage. **Click on High-Ground** to show that you're paying attention. The words **Corner** and **Side** appear. **Click on either word, then on the number indicating the particular side or corner** you want the sniper to take (Corner 1/2, for example). You can change your mind if you want. Just **click on High-Ground again** once you've finalized your choice.

Rooker concludes the briefing by assigning Carmichael, Denton, and Wixell to Entry Team A. You and Tello make up Entry Team B. At this point, the scenario takes off in one of eight directions depending on your entry strategy. The strategy choices are outlined below; again, note that only the first one leads to a successful resolution.

Eastman 1: Side 1, Stealth Entrance with High-Ground Cover at 4/1 Corner. Successful Conclusion.

Eastman 2: Side 1, Stealth Entrance without High-Ground Cover. Unsuccessful Conclusion.

Eastman 3: Side 1, Dynamic Entrance with High-Ground Cover at 4/1 Corner. Unsuccessful Conclusion.

Eastman 4: Side 1, Dynamic Entrance without High-Ground Cover. Unsuccessful Conclusion.

Eastman 5: Side 2, Stealth Entrance with High-Ground Cover at 4/1 Corner. Unsuccessful Conclusion.

Eastman 6: Side 2, Stealth Entrance without High-Ground Cover. Unsuccessful Conclusion.

Eastman 7: Side 2, Dynamic Entrance with High-Ground Cover at 4/1 Corner. Unsuccessful Conclusion.

Eastman 8: Side 2, Dynamic Entrance without High-Ground Cover. Unsuccessful Conclusion.

Eastman 1: Side 1, Stealth Entrance with High-Ground Cover at 4/1 Corner

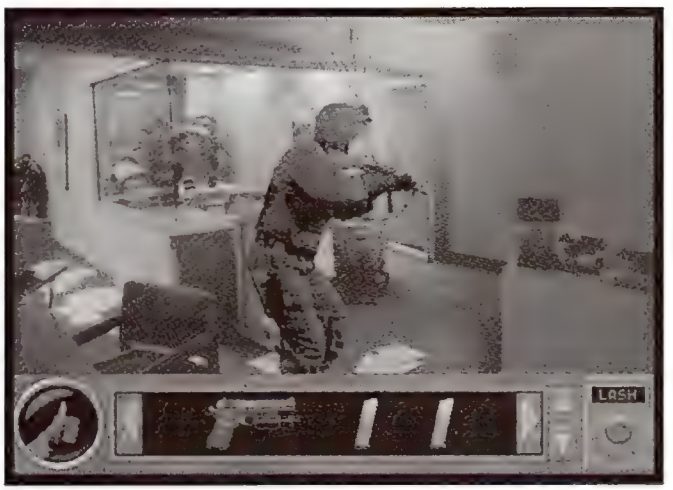
The team enters the scene. Carmichael, as the scout, leads with an MP-5. He is followed by Denton with the shotgun and Tello with an MP-5 and the mirror. You're next, armed with an MP-5. Wixell brings up the rear with an M-16 and a hooligan tool. As you come to the door, Denton steps out to provide cover. First thing you should do is load your MP-5 and select it from inventory. This way you'll have the weapon cursor available should you need to shoot anybody.

In this scenario, sometimes when you fail to give an instruction within the allotted time, Rooker will ask what's going on. Then he'll take control of the situation and give the instruction for you. Be advised that you won't always get off the hook this easily. At other times, if you do not give the order quickly enough, a bad guy gets the drop on you and you're toast.

OK, what now, element leader? How about checking to see if the door is open? To do so, access the LASH and click on the words **Entry Team A Open Door** then click **Transmit**. On your order, Carmichael will try the door. Guess what? It's locked. How does SWAT get through a locked door? Ring the doorbell? Knock politely? Not! **Transmit the instruction Entry Team A Breach Door.** Wixell passes the hooligan tool up to Carmichael. The guys won't carry out a dynamic tactical maneuver like breaching without your go-ahead, so **Transmit Entry Team A Initiate.** Carmichael pops open the door. Now that the door is open, you all run in with guns blazing, right? Wrong. Any time you enter an uncleared room or round a corner, you must follow tactical procedures. Give the instruction to mirror the door by **transmitting Mirror Door to Entry Team A**. Carmichael uses the mirror to look beyond the doorway. He uses a thumb's up hand signal to give the all-clear.

When entering, it's good tactics to send some of your men one way, some the other. Since the entry team is already divided into two subgroups, the simplest way to accomplish this is to order Team A and Team B to go in opposite directions. To do so, send **Entry Team A Right and Entry Team B Left.** The teams line up for entry. Give the command **Entry Team A Move and Entry Team B Move.** The men deploy through the door, going in the direction previously determined. The scene changes to the building interior. Save your game.

When the entry team enters a new room, the first thing they do is check it thoroughly for suspects, hostages, booby traps, etc. This is called "clearing a room." Since you don't want to send everyone tripping over each other, the instruction to clear the room must reflect your previous entry instruction. Since you sent Team A to the right and Team B to the left on entry, transmit the message **Entry Team A Clear Right and Entry Team B Clear Left.** The scene changes to the interior of the office.

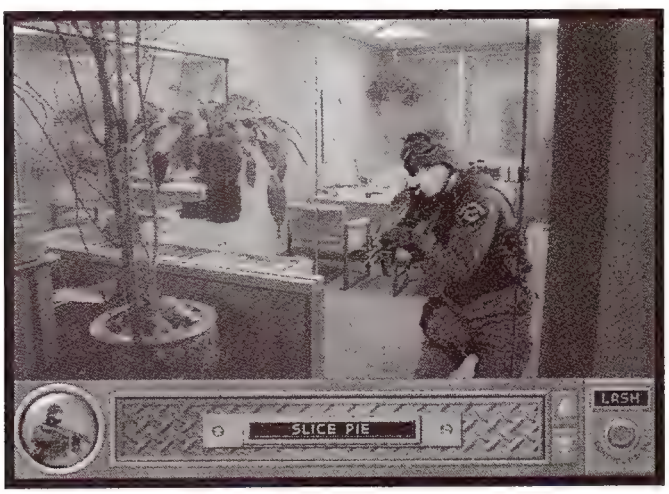


Transmit **Entry Team B Clear Right.** Tello clears the area. Now transmit **Entry Team B Clear Left.** Tello covers you as you move in for a closer look. Since you want to keep your target area as small as possible, **slice the pie to the left of the desk.** Well now, what do we have here? It appears to be Ron Eastman, or at least what's left of him.

First, use the LASH to tell the brass outside that you have a **hostage down.** Once you've taken care of that, identify yourself as a police officer. **Click the arrow cursor on Eastman** to talk with him. Soon

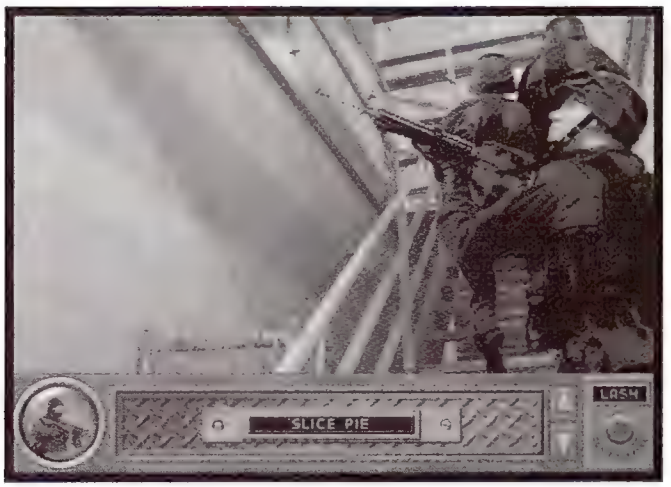
the EMT arrives on the scene. Now you can get back to the business of tracking down the bad guys. Save your game.

The scene changes. You see your men set up and awaiting further orders. Transmit **Entry Team B Clear Left.** The scene changes again. Tello walks through the doorway and slices the pie to clear the desk. The next scene shows Carmichael up against the door. Denton and Wixell are set up in the middle of the room, and Tello comes in.



Tell Carmichael to check the door: Transmit **Entry Team A Open Door**. The door opens slightly. Transmit **Entry Team A Mirror Door** and Carmichael reports that the next room is clear. To enter the room, transmit **Entry Team A Right and Entry Team B Left**. Initiate the room entry with **Entry Team A Move and Entry Team B Move.**

The scene changes and you see Carmichael and Denton set up facing the stairs. Tello has set up near the boxes. Wixell enters and sets up behind Denton. To clear the stairs, highlight **Entry Team A Clear Right and Entry Team B Cover Left**. Tello covers Team A while Denton cautiously moves up the stairs.



Instruct Carmichael to check out the area behind the wall by **transmitting Entry Team A Mirror.** He clears the storage area. Further Team A's progress up the stairs by **transmitting Move to Team A.** Carmichael automatically mirrors the corner when they reach the top of the stairs. Team A goes up to clear the loft upstairs. Now it's time for you to move. **Click the left directional arrow** to follow Tello. (Remember, the arrow that looks like it goes up the stairs is the default arrow. Using it will get you killed.)

Tello is set up on the boxes, providing cover. Save your game, then **wait** until Team A stacks up behind Tello. **Transmit Entry Team A Clear.** They mirror and clear down to the far end of the boxes. Tell **Teams A and B to Hold.** Give the instruction **Entry Team A Clear Right and Entry Team B Cover Left.**

Give the instructions for A and B Teams to Move, then to Hold when the team gets to the far right corner. You're getting close now. Send Entry Team A the message to **Mirror** around the corner. Carmichael quickly withdraws the mirror and signals "Suspect." The militia dudes are just around the corner! **Transmit Entry Team A Flashbang!** Follow up on the explosion by **slicing the pie right** around the corner.

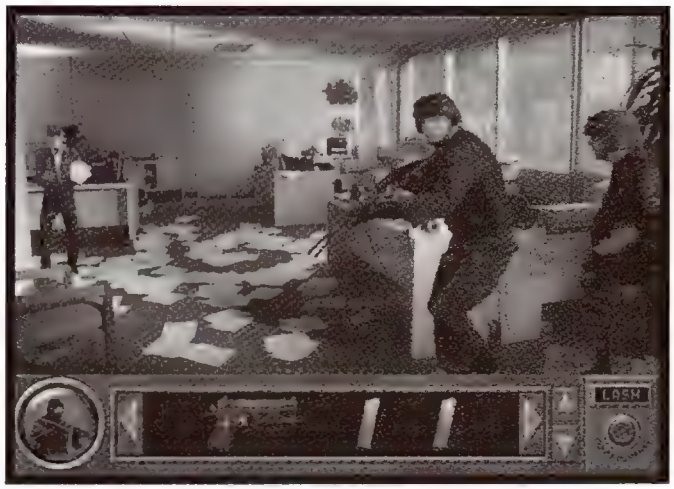
The flashbang stunned two of the bad guys. They raise their hands, surrendering. But suddenly, a third guy jumps up ready to fire. What are you waiting for? You must **shoot him.** If your aim is true, the guy drops before he can hit anybody. You have the suspects in control. Congratulations! You have successfully neutralized the situation!

EASTMAN 2 THROUGH 8

The following seven scenarios all end in tragedy, but we thought we'd walk you through them anyway. You only have high-ground cover if you positioned the sniper team at the 4/1 corner. Placing them at any other side or corner means that the entry team goes in without high-ground cover.

Eastman 2: Side 1, Stealth Entrance without High-Ground Cover

This scenario starts out the same way as the successfully concluded Eastman scenario outlined above. **Follow the steps above** to successfully gain entrance to the building. The entry team runs in the office. A militia man rushes out from behind the glass wall, firing his weapon. In the back office, another terrorist is blasting away. This is not — repeat, not — a successful scenario conclusion. Better try some high-ground coverage next time, SWAT puppy.

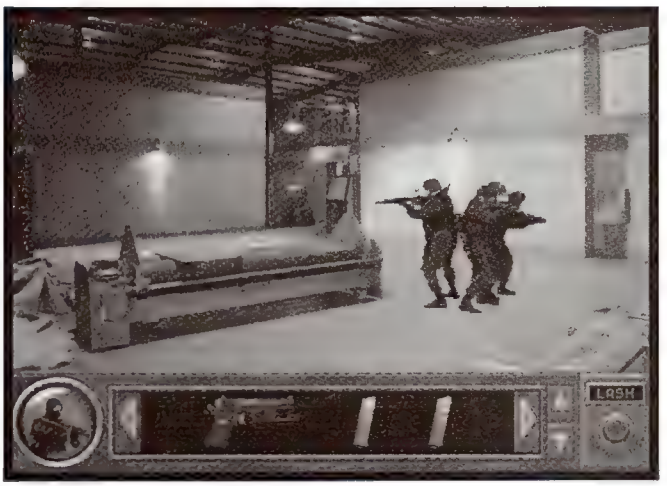


Eastman 3: Side 1, Dynamic Entrance with High-Ground Cover at 4/1 Corner

Carmichael enters with his MP-5. Denton follows with the shotgun, Tello with his MP-5. You come next armed with an MP-5. Wixell brings up the rear with the M-16. The gas man gets into position. Rooker informs the team that he'll be initiating a flashbang diversion on side 2 and tells you to prepare for entry. **Instruct Carmichael to Breach Door.** Wixell hands up the break-and-rake tool, which is used to break windows and then rake out the glass. Once your team is set, Rooker yells, "Go!" You have just a few seconds in which to **transmit the Initiate order**, launching your team into action. (If you aren't quick enough with your order, the flashbang goes off and the militia men attack.) The entry team runs into the building. You find yourself confronted by the terrorists. Their hot lead quickly puts an end to this scenario. Maybe a dynamic entry wasn't such a great idea after all.

Eastman 4: Side 1, Dynamic Entrance without High-Ground Cover

The entry team comes up to the door, staying low to avoid window exposure. Your first order is the obvious one: **transmit Door Open**. Carmichael tries the door and reports that it's locked. The team carries a break-and-rake tool. Give the order **Breach Door** and Wixell passes the tool up to the scout. Prepare your men for entry. **Transmit Entry Team A Right and Entry Team B Left**. They line up in the proper order and wait for further instructions. **Transmit Initiate**, ordering Carmichael to break and rake the glass in the door. Now you're ready for the dynamic entry. **Transmit Flashbang**. Denton tosses a flashbang through the door. Immediately after the explosion, Denton runs in, followed by Carmichael. A militia man fires at them and Denton goes down. This scenario is over. Next time, don't be such a Hondo.



Eastman 5: Side 2, Stealth Entrance with High-Ground Cover at 4/1 Corner

Even though you make this entrance on side 2, the procedures are the same as for side 1. Give the command **Entry Team A Right and Entry Team B Left.** Then give the order **Entry Team A Move and Entry Team B Move** to make a successful stealth entrance. When you enter the building, you see the team sweeping the area for threats. Instruct the team to expand their search by **transmitting the command Move Right. Click the forward arrow immediately** to follow your men. If you lag behind, the militia men get the jump on you and the scenario ends with your funeral. But, guess what? Even if you do keep up, you get shot. We're talking about a no-win situation here, folks. Better luck next time.

Eastman 6: Side 2, Stealth Entrance without High-Ground Cover

This is a very simple scenario: You go up to the door, you get killed. Without high-ground cover by your snipers, you don't have a chance.

Eastman 7: Side 2, Dynamic Entrance with High-Ground Cover at 4/1 Corner

Carmichael comes up with his MP-5. Denton follows with the shotgun, Tello with his MP-5. You come next armed with an MP-5. Wixell brings up the rear with the M-16. The gas man gets into position. Because you've chosen a dynamic entrance, you need to prepare to deploy a flashbang. First, have Carmichael see if the door is locked. **Transmit Open Door.** The door is locked. Instruct Carmichael to **Breach Door.** Wixell hands up the break-and-rake tool. Get the team ready to enter once the flashbang explodes. Assign their positions by transmitting the instructions **Entry Team A Right and Entry Team B Left.**

Once your team is set, **transmit Initiate.** Carmichael pops the door with the hooligan tool. Quickly give the order **Initiate Flashbang.** The flashbang explodes. The entry team runs into the building. A terrorist jumps out and shoots you. Guess it's back to the greaseboard for you, SWAT puppy.

Eastman 8: Side 2, Dynamic Entrance without High-Ground Cover

It's another simple scenario. Without sniper coverage, you and your team are sitting ducks. A terrorist breaks a window on the second floor and fires down on the team. Quick thinking and reactions do you no good: You only have time to see your men get shot before the lights go out.

EASTMAN: ELEMENT LEADER

The following is a quick cheat sheet of the LASH commands you need for a successful resolution to this scenario.

Building Exterior

- **Team A Open Door**
- **Team A Breach Door**
- **Team A Initiate**
- **Team A Mirror Door**
- **Team A Right and Team B Left**
- **Team A Move and Team B Move**

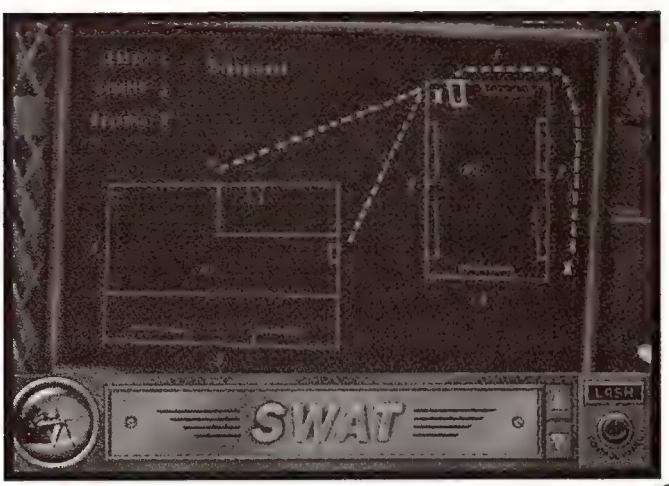
Building Interior

- **Team A Clear Right and Team B Clear Left**
- **Team B Clear Right**
- **Team B Clear Left**
- **Slice Pie Left on desk**
- **Hostage Down**
- **Click arrow on Eastman**
- **Wait for EMT**
- **Team B Clear Left**
- **Team A Open Door**
- **Team A Mirror Door**
- **Team A Right and Team B Left**
- **Team A Move and Team B Move**
- **Team A Clear Right and Team B Cover Left**
- **Team A Mirror**
- **Team A Move**
- **Left arrow to follow Team up stairs**
- **Wait for your element, then Team A Clear**
- **Team A Hold and Team B Hold**
- **Team A Clear Right and Team B Cover Left**
- **Team A Move and Team B Move**
- **Team A Hold and Team B Hold**
- **Team A Mirror**
- **Team A Flashbang**
- **Slice Pie Right**
- **Shoot armed suspect**

Your job as SWAT sniper is to watch and wait until given the green light to take your best shot. If you fire prematurely, you will be severely reprimanded and suspended, or sent to prison.

EASTMAN: SNIPER

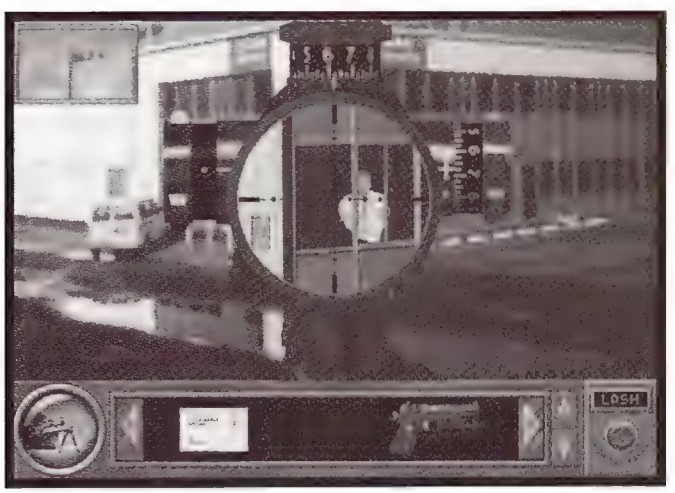
If you are a qualified sniper, Rooker briefs you and assigns you to the high-ground cover on the roof of an adjoining building. The safe route to your position is



laid out on the greaseboard. Rooker dismisses you. You accompany Saunders, your observer, up to the roof.

You get into position and look through the rifle scope. On top of the Eastman building, a flag blows in the wind. Using the Mil Dot reticle and the range tables in the Dope Book you can determine your distance (you are 200 yards away). **Load your weapon**.

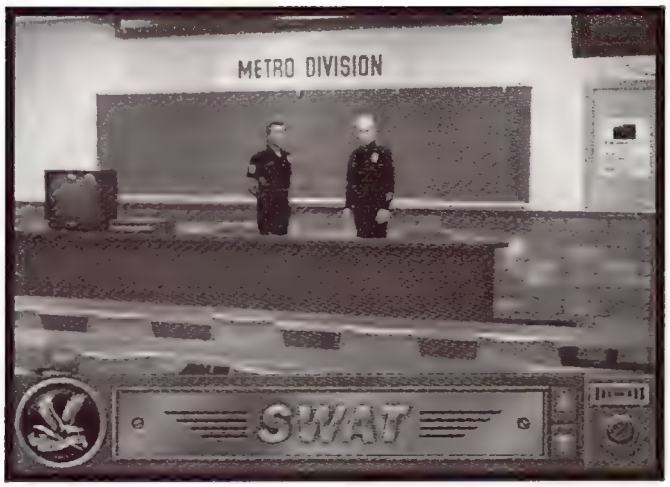
Though you cannot see him, Saunders is up on the roof with you. He will communicate with Rooker over the LASH, freeing you of the necessity to do so (though you may use the LASH without penalty if you so desire). Saunders will also keep you informed of the wind's velocity and direction, which is variable and



can change at any time. **Set the BDC** for a distance of 200 yards by an increased adjustment of 9 clicks from your 100-yard zero setting.

The suspects and the hostage appear at various times and places. Saunders will keep you informed whenever he sights any activity in the windows. Move the scope to the location specified (side 2, level 1, opening 7, for example) and adjust for the wind. The suspects spend a lot of time rummaging around. If they are unarmed and pose no active threat to the hostage, Rooker will order you to hold your fire.

Wait until the suspect appears in the window with the hostage. He is armed. Saunders informs Rooker that there is a weapon visible. Because of the immediate threat to the hostage, Rooker gives you the green light to take the shot. **Adjust for the prevailing wind** (see the example shown below). The suspect pushes Eastman from window to window. **When you have a clear shot at the suspect, fire.** If you are successful, the scenario will close with Rooker telling you that you're being suspended pending investigation. You will be reinstated to active duty on your next visit to Metro.



If you hit Eastman, things could go one of two ways. If your settings are incorrect, it is ruled that you shot him by accident and you will be cleared and reinstated. However, if you made the correct adjustments, it is ruled that you hit Eastman on purpose and you go to jail. If you miss both Eastman and the suspect, the suspect reacts to your fire by shooting his hostage. You are suspended from active duty. The next time you go to Metro, Saunders gives you a pep talk. The time after that, Rooker reinstates you to active duty.

Windage Adjustment Example

Calculate the necessary windage adjustment or use the table provided below. Recall that V is the wind velocity in miles per hour, or 8 in this example. R is range in hundreds of yards, so that for a range of 200 yards, R = 2.

$^{VxR}/_{15} = {}^{8x2}/_{15} = {}^{16}/_{15} =$ 1.07 MOA x 4 clicks/MOA = approximately 4 clicks

Since the wind is a crosswind blowing from the left in this example, it will move the bullet to the right of the target. Adjust the windage knob so that the reticle moves four clicks to the right.

WIND (mph)				
5	10	15	20	25
3/2	5/4	8/6	11/8	13/10

Wind adjustment for 200 yards
(Rounded to the nearest click)

Crosswind → 3/2 ← Oblique Wind

EASTMAN: SUBSEQUENT SNIPER CALL-UPS

If you continue to play the game, you may be called up to play the Eastman Sniper scenario again. The wind will be a random factor in these replays, as will suspect and hostage movement. In any case, your best bet is to adjust the BDC for 200 yards, calculate and adjust for wind, and wait for Rooker to give you the green light to shoot. Of course, if you want to go ahead and shoot things without waiting for permission, that's your prerogative. Just be prepared to suffer the consequences.

Chapter Three

SWAT Tactics

Over the past three decades, LAPD SWAT has worked hard to develop and perfect the techniques and equipment to peaceably resolve potentially violent situations. SWAT tactics encompass many fields and disciplines ranging from weaponry and use of force to camouflage and negotiation.

This section covers a number of relevant topics in an attempt to give the reader a sense of a SWAT officer's depth of knowledge and commitment to the principals of the organization. You'll get an overview of the history and structure of D Platoon, an introduction to SWAT tactics, and a detailed analysis of the science of sharpshooting. Some of this information can be found in the Tactical Education section of the game; this chapter provides an additional reference source.

The photos in this section are from LAPD SWAT files and have been reprinted by special permission. While many of the pictures were shot during actual call-up situations, photos of armed suspects were taken during training simulations. We think you'll agree that whatever these photos may lack in aesthetics, they make up for in authenticity.

SWAT History and Structure

HISTORY

As a response to increased urban violence in the early 1960s, police and sheriff departments began implementing military strategies against armed and barricaded suspects. Among the first to organize such a full-time tactical unit was the Los Angeles Police Department. Christened Special Weapons and Tactics (SWAT) by future LAPD Chief Daryl F. Gates, this elite group would revolutionize crisis management techniques nationwide.

Several tragic incidents spurred SWAT's creation. The Watts riots in August 1965 lasted for seven days and involved 10,000 people over an area of 46.5 square miles. Thirty-four people died and more than 1,000 were wounded. Even as the fires smoldered, the LAPD realized that innovative tactics were needed to contain and control this new form of decentralized mayhem.

Additional tactical deficiencies became evident only a month later during an incident that came to be known as the Surrey Street shootings. A barricaded suspect started firing on LAPD officers responding to a disturbance call. By the time the smoke cleared, three officers, a citizen, and the suspect had been wounded. Chief Gates wrote about the incident in his autobiography *Chief: My Life in the LAPD* (Bantam Books), "Later, as I analyzed how we had responded, I realized again, as I had during Watts, that we were going to have to devise another method for dealing with snipers or barricaded criminals other than our usual indiscriminate shooting."

Gates and several of his fellow officers began studying guerrilla warfare and military tactics. They identified the department's best marksmen and provided them with informal special training whenever time permitted. The men officially remained with their previously assigned units and did not receive any extra pay. The unit was so low profile that a bulletin about an upcoming training session would read "Bring your lunch" when it really meant "Bring your rifle."

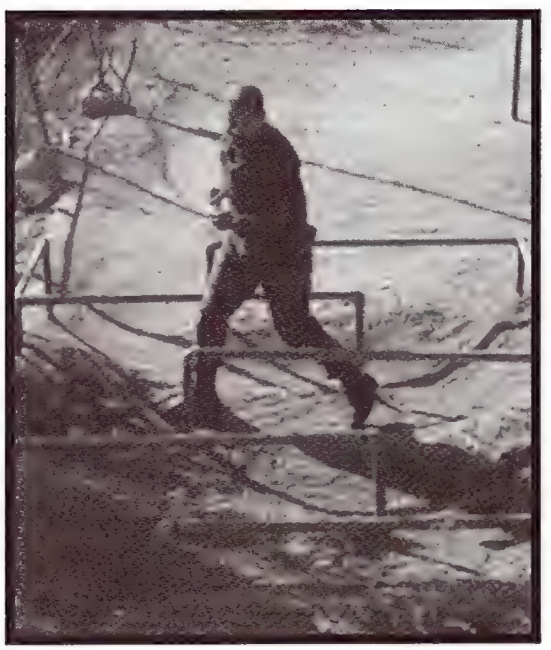
By late 1967, the antisniper group consisted of the department's 60 best marksmen who also ranked in the top 25 percent in physical skills. Even so, no LAPD money was allotted for special equipment. Officers were forced to become quite inventive, cannibalizing their weapons to upgrade their performance and making ladders, mirrors, and other tools to suit the demands of the job. Early SWAT teams did their training on a movie studio back lot and on a farm.

SWAT's debut public performance occurred on December 8, 1969, when officers attempted to serve arrest warrants to two members of the Black Panther organization. Their arrival was met with a fusillade of automatic weapons and grenades. After a shoot-out that lasted many hours and used hundreds of rounds of ammunition, the Panthers left their fortified shelter and surrendered. And just in time, too: SWAT had borrowed a military grenade launcher from Camp Pendleton and was prepared to use it should the situation continue. Three officers and six Black Panthers were injured in the shoot-out on Central Avenue. This high casualty rate was reason enough for the LAPD to decide to make SWAT a formal unit. In 1971, the Metropolitan division in downtown Los Angeles formed what is now officially known as D Platoon.

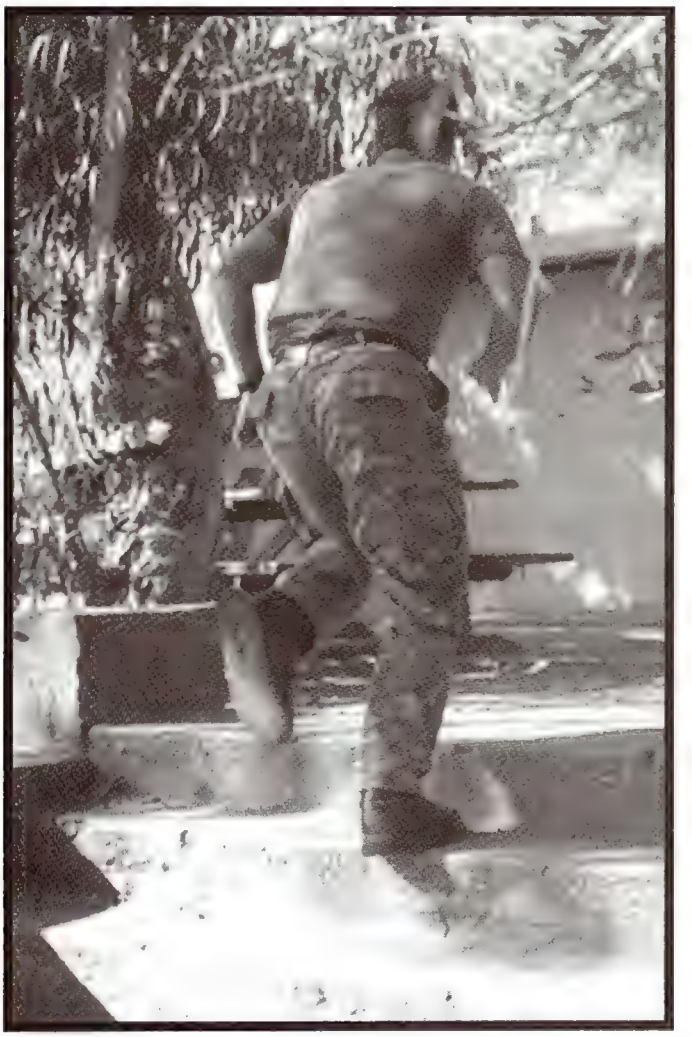
Although SWAT justified its existence many times over, it took Los Angeles' decision to host the 1984 Olympic Games to finally spur the city into providing necessary financial backing to equip the unit properly. The additional funds also enabled revolutionary changes in training, with live ammunition replacing blanks in the shooting houses set up to resemble hostage scenarios. It had taken 15 years, but finally this "ragtag little outfit," as Gates called it, had evolved into a trained and disciplined unit equipped with high-tech weaponry and sophisticated electronics. In a crisis situation, SWAT can be counted on to respond quickly to any emergency with the planning, training, and tactics necessary to diffuse potentially tragic situations.

PHYSICAL FITNESS

It takes a certain combination of physical and mental strength to make an effective SWAT team member. A SWAT applicant must successfully complete an intense battery of interviews and testing before being considered for this select group. A potential SWAT officer must demonstrate mental stability and the ability to make decisions after a quick and careful weighing of alternatives and ramifications. Candidates are also evaluated on self-discipline and their ability to participate as a team player. An overly aggressive person will not make a good SWAT member and will not be considered.



The SWAT officer works under a multitude of stressful, dangerous conditions requiring extended periods of physical exertion. Because a well-conditioned individual has more endurance and can perform at a higher rate, a certain level of physical fitness must be demonstrated by all SWAT candidates. Physical fitness must be maintained throughout the officer's career. Approximately 40 percent of the SWAT work week is spent in training, and officers are tested routinely.



LAPD SWAT Physical Fitness Qualification Test

The Physical Fitness Qualification (PFQ) is administered in the following sequence:

1. **Running:** Three-mile run over a paved and hilly course with uphill grades ranging between approximately six to 10 percent. A minimum qualifying time of no more than 25 minutes is required.
2. **Push-ups:** A minimum of 40 push-ups is required to achieve a passing score.

Photos by Rod Fung

3. **Sit-ups:** A minimum of 60 sit-ups is required to achieve a passing score.
4. **Pull-ups:** A minimum of five pull-ups is required to achieve a passing score.

Upon completion of all four parts of the PFQ, the individual scores are totaled and an overall score is awarded. An officer must pass all four tests in order to successfully complete the PFQ. Any officer who fails to pass the PFQ has 30 days in which to retake and pass the test. In the interim, the officer will not be used in a tactical operation.

STRUCTURE

D Platoon is the official designation for LAPD SWAT. Based out of the Metro Station in downtown Los Angeles, D Platoon consists of 60 officers, six sergeants, and a lieutenant. The lieutenant assumes the role of the SWAT Commander, responsible to the Chief of Police for the unit's activities. Six sergeants answer to the lieutenant.

Each sergeant has a squad of 10 officers under his jurisdiction. A squad is comprised of two five-man elements.

Photos by Rod Fung

Each element is led by an element leader who directs the tactical deployment of the team. Element leaders must have a thorough understanding of all team positions and the ability to make quick, effective decisions under pressure.

The element's scout gathers information prior to the formation of the tactical plan. As the advance man of the entry team, the scout uses a 180-degree mirror to see around corners. The rear guard is the third member of the standard entry team. He provides cover for the scout and assists with reconnaissance. The sniper, or marksman, is equipped with a .223 or a .308 sniper rifle. When required by the operation, the sniper takes a high-ground position and provides cover for the SWAT entry team.

The sniper is paired with an observer who alternates with the sniper if the operation is demanding or takes a long time to resolve. If necessary, the five element members are backed up by additional personnel. Trailers are assigned to contain and secure rooms that have been cleared by the entry team. In addition, paramedics may attach to the unit.

Team members generally cross-train and specialize in other areas besides those demanded by their position within the element. In order for the element to function flawlessly as a whole, each officer must thoroughly understand and execute his own individual duties.

SPECIAL DUTIES

A SWAT officer's primary duty is to respond to crisis situations requiring his special skills and training. However, the SWAT team has other responsibilities that actually take up the majority of the work week.

The SWAT officer is obligated to maintain his level of physical fitness. To this end, the first hour of every

shift is spent working out. In addition, two days per week are devoted to training exercises designed to hone relevant abilities.

One of SWAT's special duties is to provide security for high-profile public figures. Visiting dignitaries are protected using a combination of three fundamental strategies: high-ground security, fixed-post security, and motorcade security. For security measures to be fully successful, all possible dangers to the dignitary must be taken into consideration. A detailed study of the itinerary, route, and access points is mandatory when protecting the lives of both VIPs and bystanders.

When the SWAT team is not on a call-up or training, the officers become available for a duty known as crime suppression. Crimes throughout the Los Angeles area are collated by an LAPD statistician looking for recurring patterns. Once the statistician has narrowed down a particular criminal trend to a certain division, he informs the Metro captain, who then assigns two-person SWAT teams to patrol the area.

SWAT is also responsible for serving arrest and search warrants under certain conditions. The criteria are: First, the identity of the persons inside the location must be known. Second, it is suspected that the warrant location is fortified or barricaded at the doors and windows. This could slow down and jeopardize officers attempting to use traditional entry methods. Third, the person or persons inside must be believed to own unusual weaponry or to have a history of violent behavior. The fourth condition can include a variety of circumstances, such as the presence of easily destroyed evidence such as narcotics. All these factors are considered before SWAT is called in.

A high-risk warrant is either served dynamically by forcing a high-speed entry into the location or by using a "surround and call-out" mode. This means that the SWAT officers surround and contain the location, then use a bullhorn or phone to give the suspect a chance to surrender.

Much planning goes into a successful warrant service. Information regarding the situation is researched and compiled. The mission is drawn up, including

personnel assignments and such logistical issues as radio frequency, code designations, and equipment lists. If ropes, ladders, battering rams, or other specialized equipment will be used, a practice session can facilitate a smooth, quick, and silent entry.

Comprehensive briefing plays a vital role in the serving of a high-risk warrant. SWAT conducts a tactical briefing session for the team as well as a general session for all participants. Topics include suspect and armament information, entry points, location specifics, equipment, and individual assignments. Photographs and diagrams are commonly used to enable officers to familiarize themselves with the location's layout.

After the final briefing, personnel are deployed to their assigned positions. A last-minute surveillance check determines if there have been any changes at the site. Once everyone is in place, the entry team cautiously approaches the location and announces themselves and their intentions. If shots are fired or if there is no response, the location is entered and its inhabitants secured. Serving a warrant to an armed and dangerous suspect requires speed and surprise. Success is ensured only if the SWAT team rigorously follows a strategy that includes detailed planning, rehearsing, and briefing.

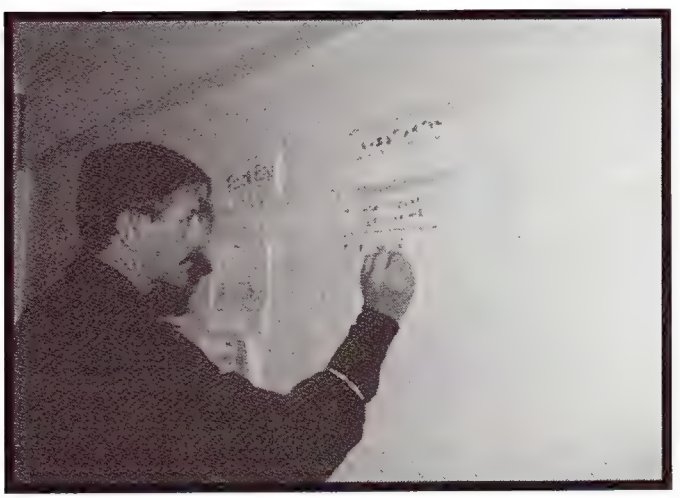
CRISIS NEGOTIATION TEAM

Crisis situations involving a barricaded suspect are resolved through a combination of tactical and negotiation strategies. The LAPD's Crisis Negotiation Team (CNT) is centralized with the SWAT unit.

The CNT consists of five team members. The team supervisor is responsible for coordinating the CNT's

activities. The primary negotiator is responsible for establishing and maintaining a direct line of communication with the suspect.

The secondary negotiator provides a back-up for the primary negotiator as well as maintaining a log of the proceedings. The investigator collects evidence for the prosecution, establishes a criminal profile, and gathers resource intelligence. The psychologist advises the team supervisor and the primary negotiator and also determines psychological and behavioral profiles for the suspect and hostage(s).



Armed with information provided by the rest of the negotiation team, the primary negotiator tries to get the suspect to come up with an alternative to a violent resolution. By gaining the suspect's trust, the negotiator regains control of the situation and can manipulate the suspect into compliance.

Understanding the suspect's motive and mental state are of utmost importance to the negotiating team. Hostage-takers are commonly divided into three categories: The criminal deviant has committed a crime and takes a hostage upon having his escape route cut off. The mentally ill hostage-taker tends to be irrational, depressed, or possibly even elated by all the attention. Negotiation with a psychotic is complex since he cannot be appealed to rationally. The terrorist takes hostages for political motives. In successful negotiations, the terrorists' determination to die for their cause deteriorates over time, allowing other resolutions to become possible.

Negotiators may be called upon to deal with unpredictable developments. Once in a while, a strange relationship between the suspect and the hostage occurs. Known as the Stockholm Syndrome, this curious bonding was first noted after two bank robbers held hostages in a vault for four days. When the police stormed the vault, the hostages shielded their captors with their own bodies. Later, one of the hostages married one of the gunmen.

The CNT passes along suspect information and also buys valuable time needed by the tactical team to plan and implement strategies. The tactical SWAT team and the Crisis Negotiation Team work together to facilitate crisis resolution. Both share the common goal of a peaceable outcome without the need to resort to force. By combining their skills and strategies, SWAT and the CNT strive to successfully defuse tense, potentially violent situations and prevent deaths.

EMERGENCY MEDICAL SUPPORT

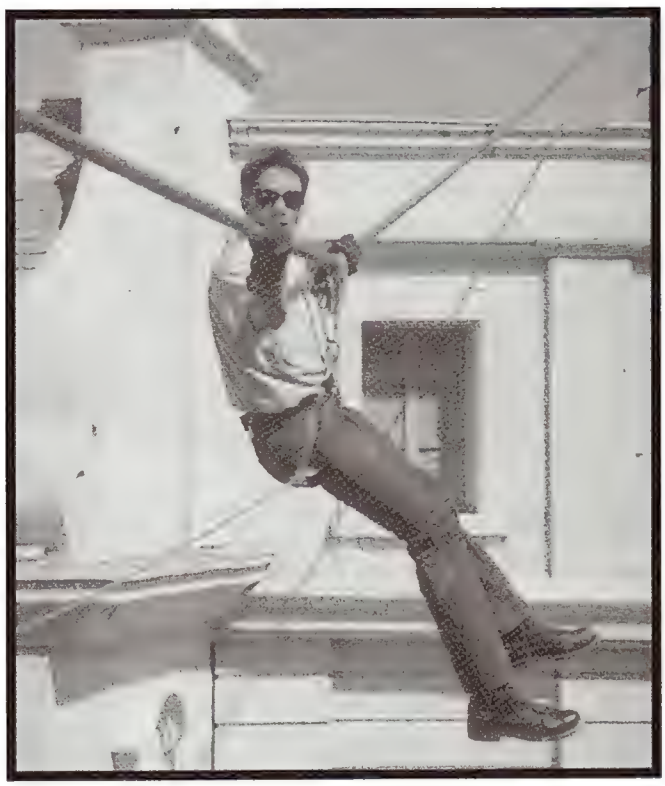
A SWAT officer approaches a house to serve an arrest warrant. Suddenly, shots are fired. The officer goes down with chest wounds. First aid and transportation to the hospital are required. But the officer is still within the crisis perimeter where regular Emergency Medical Service (EMS) personnel cannot, or will not, go. The situation is touch-and-go, in which minutes make the difference between life and a posthumous Medal of Valor to the widow.

In 1991, LAPD SWAT recognized that the best solution to situations requiring emergency treatment within an unsecured area was to train SWAT members as Emergency Medical Technicians (EMTs). EMTs provide advanced first aid and basic life support under a physician's supervision.

When deployed on a mission, the EMT officer carries a fanny pack equipped with standard first aid items: bandages, compresses, scissors, blood pressure cuff, antiseptics, splints, etc. Heavier or more specialized medical equipment is kept in the SWAT van. This may include an oxygen tank, airway and intubation devices, cervical collars, and intravenous fluid. Emergency care prior to evacuation from the scene often plays a critical role in the victim's chances for survival. EMT-certified SWAT officers handle medical emergencies during a crisis situation, thereby providing the prompt medical treatment that saves lives.

RAPPELLING

Rappelling is a mountaineering term for the technique of using a rope to lower oneself down a cliff, building or other sheer face. SWAT officers receive a thorough training in this physically and mentally challenging procedure. Not only does rappelling instill a sense of accomplishment and promote teamwork, it is also a highly effective method of gaining quick and surprising access to the rooftops of tall buildings.



When helicopters need to drop SWAT officers on the roof of a multistory building, rappelling from the aircraft might be necessary if there isn't sufficient landing room. A team may also rappel down the side of the building and enter through a window to gain the element of surprise on a suspect.

Rappelling equipment includes a braided nylon rope specially designed for climbing.

Other equipment includes gloves and the rappelling seat or diaper, terms that refer to the rappeller's harness. The rappeller attaches a carabiner through the harness and twists it around so the gate won't open unexpectedly.

There are several methods for hooking the rappeller to the rappelling line; an aluminum figure eight (also called a clog) is most commonly used.

After looping the line through and around the clog, the rappeller snaps the carabiner through the clog's ring. This method has the advantage of allowing an entire team to rappel in quick succession by using a series of clogs attached one below the other on the line.

The rappeller guides the descent with one hand on the rope above. The other hand is placed on the rope below, slightly above the hip, to use as a brake. When rappelling, it is important to keep the legs straight and perpendicular to the body. The feet push off from the wall while the braking hand swings out to the side, thereby releasing the line. Rappelling from a helicopter is called a "free rappel." The technique is the same; however, the rappeller has no wall to push off. He uses his hands and weight to control the speed and motion of the rappel.

Though not commonly used, rappelling is an effective procedure when the operation warrants rapid access onto a high-rise building. As such, it is a technique that must be mastered by SWAT teams prepared to respond to any crisis situation.

Tactical Considerations

TACTICAL MOVEMENT

Tactical movement is the art of moving silently and stealthily to sneak up on a suspect or location.

Mastering this art is a priority for SWAT team members whose lives may well depend on their ability to move without being detected. Each team member must be able to move quietly and skillfully so that the unit's position is not revealed to the suspect or persons under surveillance. Every move must be planned out. Officers are taught to stay prone or kneel between moves and know exactly where they're going before leaving their position. In choosing their next move, they pick the route that offers the best cover and concealment.

They learn to take advantage of dark areas and objects like trees and cars that can be used as cover, and they stop, listen, and observe between each change in location. They also plan halts to provide cover and the space for weapon deployment if necessary.

While team members are responsible for their individual moves, the team leader is accountable for the movement of the unit. The factors contributing to team movement are control, routes and navigation. Control refers to the planning stage prior to the operation. The team leader gathers the pertinent information, including suspect profiles, maps, equipment requirements, and location photos. The team is briefed on the assignment and their individual responsibilities. The operation may be rehearsed to uncover any potential problems in the plan.

The route should be planned so as to avoid known trails and locations. Take advantage of difficult terrain to increase the element of surprise and decrease the risk of booby traps. Danger areas include open spaces and roads. Cross at a bend or a narrow place in the road to limit the time you will be exposed to view.

Team members should "leapfrog" rather than move all at the same time. This enables the stationary officers to cover the officers on the move. At night, team movement should be more contained to allow visual contact between members. The team will move slower to avoid obstacles and therefore make quieter transitions.

Practicing tactical movement skills is of vital importance if the unit is to truly function as a team. An organized, proficient team should be able to move in a safe, silent, and undetected manner in almost any tactical situation.

ENTRY TECHNIQUES

The suspect has taken hostages and holed up in a deserted warehouse. Negotiations have proved futile. The team leader gives the order to enter the warehouse and neutralize the situation.

The unit springs into action. Simultaneous explosions rip a hole through the wall and blow out a window. Jumping through the breaches, the entry team surprises the suspect and takes him down before he has time to react.

Rigorous training sessions perfect the skills demanded for a clean, aggressive, and safe entry. SWAT officers practice specialized entry techniques with the goal of being able to handle even a worst-case scenario with confidence.

There are several rules to follow when entering a building inhabited by a potentially dangerous suspect:

- Keep your weapon horizontal and aimed in your direction of movement. Never point it in the air or at the ground.
- Enter with alacrity, aggression, and commitment. The first man in picks his direction and sticks to it. The second man takes the opposite direction. It is of vital importance that you do not hesitate or change your bearing.

- Clear the doorway immediately upon entering. Hesitating holds up the team members behind you and leaves you vulnerable to gunfire.

- Shooting drills should include a contingency for weapon malfunction. Make a habit of switching to your partner's target after engaging your own.
- Once in a room, clear it quickly using diversionary devices or other neutralizing techniques. At all times remain aware of the position of the suspect and any hostages, as well as the actions of your team members.

- Maximize your distance from the corners and use angles to decrease risk. This technique, referred to as "slicing the pie," will provide you with a significant advantage over your opponent.

- The term "roll out" refers to a technique of looking into doorways and around corners by bending at

the waist and leaning out. The advantage of rolling out is that you only expose a small target area.

- Do not sneak up to corners hugging the wall. If a threat lurks on the other side of the wall, you can be easily disarmed.

SWAT snipers are frequently positioned on high ground to cover the entry team. As every location should be penetrated at a minimum of two entry points, it is likely that one of them will be a window. Teams should rehearse with and carry ladders to aid in window entry.

Using explosives to gain access to a building is effective both as an agent of surprise and as a guaranteed entry method. Diversionary devices should be deployed simultaneously with the explosives in order to distract the suspect from the entry preparations. When used correctly, breaching explosives will not harm officers or the building's inhabitants. Once the location has been secured, the area is searched and the hostages evacuated.

To create the most realistic scenarios, training sessions take place in a variety of locales with simulated suspects and hostages. Only by training with the worst possible case in mind can the SWAT team thoroughly prepare for any eventuality. The entry team must act together, coordinating their movements with a unified plan of action. In order to successfully accomplish the

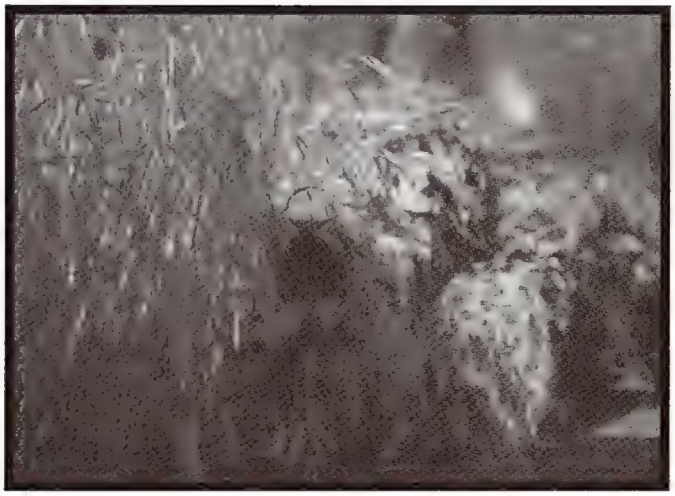
objective, each individual has to understand and flawlessly perform his assigned role in the entry operation.

VISUAL AND SOUND FACTORS

The room is dark and still. You know he's in there, armed and dangerous, but you can't see him. Suddenly, you hear a noise. You hit the pressure switch on your gun-mounted flashlight and a beam penetrates the shadows. The light reflects off metal. You fire. The return fire catches you by surprise. As you fall, you realize that your flashlight provided the perfect target. A fatal mistake.

SWAT officers learn early on that their lives depend upon vigilant consideration of all factors influencing the environment. Visual conditions are of the utmost concern — a SWAT officer must be able to observe the suspect without being seen himself. There are several important techniques that contribute to the fine art of concealment.

Avoid unnecessary movement because it will attract attention. If you must move, make it slow and deliberate while maintaining a crouch or prone position. Always keep your background in mind. Dark objects, such as shadows and vegetation, offer concealment.



A light-colored background, such as the wall of a house, will make you stand out like a cockroach on stucco. Think about the silhouette you create. A hill or roof may provide a good observation point, but you will be visible and therefore vulnerable. Better to make your observations from a low position, either hunkered down or lying flat.

Make sure you don't shine. Even at night, watches, glasses, or equipment might reflect a gleam of light and pinpoint your position. Wear appropriate camouflage. However, it is not enough to know how to conceal yourself. SWAT team members are also trained in visual techniques used to spot a suspect attempting the same objective. Thorough observation includes looking through or into all penetrable objects. Scan areas visible through doors, windows, crevices, bushes, and tree limbs. Systematically search the less obvious places. Look beyond your plane of vision to include high and low areas.

Photos by Rod Fung

Night operations call additional visual factors into play. It takes 20 to 30 minutes for the eyes to adjust to dim light. Covering one eye in a lit area helps preserve night vision. However, if the eyes are exposed to bright light, the adaptation process must begin all over again. At night, the eye receives a clearer image if the viewer does not look directly at an object. This technique is called "off-center vision." Scanning an area using off-center vision lessens the chance of seeing things that are not really there.

In a hazardous situation, aural factors must be considered just as rigorously as visual elements. The effective SWAT officer is aware of all noises in the environment and pays close attention to uncharacteristic sounds that may provide a clue to the suspect's location. SWAT team members must learn how to move noiselessly. Crawling on the hands and knees is quieter than on the stomach and should be used when a stealth approach or entrance is desirable. Ambient sounds can provide a tactical advantage if moves are timed to coincide with the noise of a passing truck or plane. If moving undetected within or near a building, use the sound from a television or even a toilet flushing to cover your movements.

No tactical training program is complete without in-depth study and practice of concealment and observation procedures. For a SWAT officer, a thorough consideration of the visual and sound factors influencing each operation is a plain and simple matter of survival.

DIVERSIONARY DEVICES

The suspect is barricaded in a room on the 12th floor of a high-rise hotel. You and your team fast-rope from the helicopter onto the roof, then silently rappel down the side of the building.

After ascertaining that the suspect is inside the room, you throw a flashbang through the window. There is an immediate explosion and blinding flash of light. Entering the room, you find the suspect lying face down, unharmed though in a state of shock. You disarm and cuff him before he even knows what happened. Chalk up another safe arrest to the use of diversionary device tactics.

In the pursuit of nonlethal solutions to high-risk situations, special tactics units go to great lengths to study, test, and utilize effective and relatively harmless diversionary devices. These devices make use of humans' innate physiological reaction to loud sounds and bright light.

When hit with stimuli overload, the body naturally reacts to protect itself from further input. The pupils of the eyes constrict and there is a ringing sound in the ears. These reactions distract the person, incapacitating the ability to take action.

The modern diversionary device, or flashbang, evolved from the Army's grenade simulator of the 1950s. Soldiers were exposed to the effects of a small explosive charge to better prepare them for the loud noise and brilliant light of combat. Motivated by the security needs of the 1984 Olympic Games, the LAPD SWAT unit incorporated diversionary devices into its tactical repertoire. Used quite effectively to confuse and disorient suspects, diversionary tactics continue to be researched and improved upon. Recent technological innovations include the stingball, a flashbang that scatters rubber pellets when deployed.

The diversionary device provides a safe and effective method of distracting potentially violent persons. With the recent release of previously classified government technologies, tactical agencies have been presented with additional intriguing development and implementation possibilities. As devices continue to improve, so does the success rate of the nonlethal option.

CS GAS

The barricaded suspect refuses to negotiate. His threats to kill the hostage and himself intensify. Announcing SWAT's intention to use tear gas produces no results. The team leader decides to deploy CS gas in an attempt to smoke out the suspect. After performing preparatory calculations, the gas man launches a single projectile through a window. In a matter of minutes, the suspect stumbles out, his hands raised in the air. The hostage emerges behind him, gasping for breath but unharmed.

CS gas is the common name for orthochlorobenzalmalanonitrile. CS gas took the place of CN gas (chloracetophenone) as the primary tear-gas agent used today. The suspect's reaction to CS gas will vary based on his psychological and physical condition

(natural, or drug or alcohol impaired). However, experience shows that the deployment of CS gas is a highly effective tactic. Hence, it is frequently used to defuse potentially violent situations.

Chemical agents should be deployed in a sequential manner preceded by a verbal announcement so that the suspect has a chance to surrender before each tactical phase. Simply breaking a window after a statement of intent may provide the necessary inducement, convincing a hesitant suspect to give himself up.

Marksmanship

CAMOUFLAGE AND HIDES

Camouflage is the art of disguise, the science of blending in with your surroundings so that you remain invisible to the eyes of your opponent. The eye scans an area and the brain processes the visual information according to its expectations. A human perceives an object by its shape as defined by contiguous light areas. Dark areas are seen as empty space (or rather, they are not seen). The objective of effective camouflage is to break up the distinctive outline of a person so that it blends in with background shapes, colors, and textures.

First consider clothing. Starting at the top, the sniper should wear a hat that does not conform to the shape of his head. Whereas a Kevlar helmet offers good protection against small arms fire, the sniper's primary concern is to remain undetected. A jungle hat or sniper veil, suitably camouflaged, is the sniper's headgear of choice.

To a SWAT sniper, the term "dress for success" means much more than it does to an average businessman. Camouflage clothing must be colored and patterned to match the environment of each specific operation. Black may be a good color for an entry

team that wants to make an intimidating first impression, but it is too easy to detect on a police sniper in a city setting.

According to some expert snipers, the gray-and-black pattern called Urban Camouflage is actually best used in snow; Military Woodland is preferable for the city.

For the SWAT sniper requiring the absolute in camouflage protection, the Ghillie suit is a necessity. And while it could be a fatal mistake to think of even the most painstakingly crafted Ghillie suit as a cloak of invisibility, it is the next best thing. The first Ghillie suits were made by Scottish gamekeepers who disguised themselves to nab unsuspecting poachers. A Ghillie suit, commonly called a G-suit, is constructed from a one or two piece uniform to which hundreds of burlap strips are sewn. Spray-painting the G-suit is quite an artistic endeavor as multiple colors and textures are subtly blended to match the environment. A G-suit can be as complicated and as personalized as the sniper wants to make it with the addition of pouches, internal holsters, or even a built-in canteen. It is not uncommon for a Ghillie suit to take 40 to 60 hours to make.

For the overall camouflaging to be effective, the sniper must make sure that his hat, gloves, boots, and gear are all camouflaged to match his clothing. Naturally, the face must be camouflaged as well, the coloring carefully applied so that it no longer

resembles a face at all. The basic trick to camouflage coloration is to reverse the topography of the face so that recessed areas stand out and the prominent areas recede. Do this by darkening the nose, chin, cheeks, forehead and around the eyes. Lighten the less noticeable areas: beside the nose, inside the ears, and the hollows of the chin. Apply light colors first and keep the pattern asymmetrical and irregular.

Photo by Rod Fung

Hides are carefully concealed, well-protected places from which a sniper can cover his sector of fire in relative safety. Following principles developed by military snipers during war time, a police sniper uses a hide to gain a firing advantage over a suspect, misdi-

recting his return fire by remaining inconspicuous. As well as providing cover for long-range, precision shooting, hides also come in handy for surveillance purposes. When selecting the hide location, carefully consider the enemy's perspective. Keep in mind that the eyes have a natural tendency to look to the oblique left first; stay to the right of the suspect's field of vision whenever possible. A carefully positioned and concealed hide provides a definite advantage for the SWAT sniper who must often wait for hours before placing that single, critical shot.

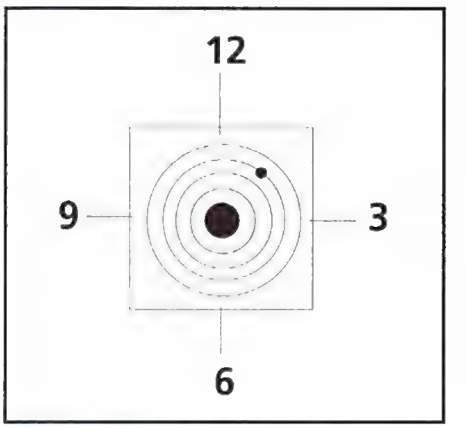
During an operation, both members of the sniper/observer team are responsible for checking on his partner's visibility. In a life or death situation, delinquency in even one minor detail can literally give away the whole shooting match.

OBSERVATION

A sniping team consists of the sniper and the observer (or spotter). Their duties are separate, but each contributes equally to the success of the mission. Both are fully trained so that during a long, fatiguing operation, the sniper and the observer switch positions to maintain concentration.

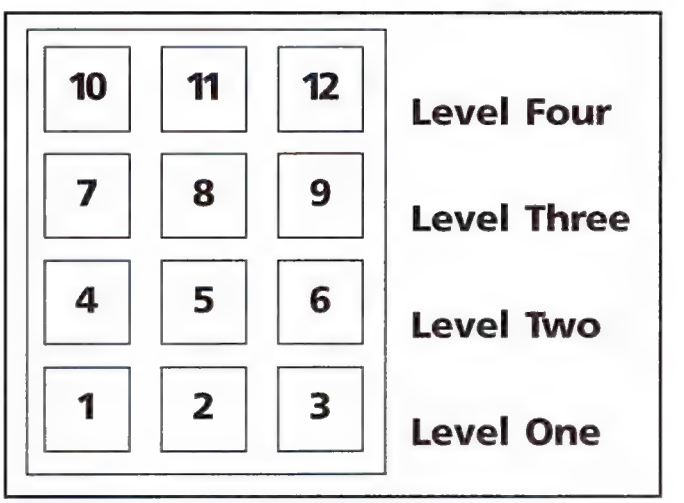
The observer's role is to help the sniper detect and identify potential targets, calculate the variables that will affect the shot, and direct his fire accordingly. The observer is responsible for radio communications and keeping written records. Additionally, the observer acts as coach during shooting practice, watching the shooter for correct positioning and breathing.

The sniper and the observer scan the field of view for movement using different optical devices so that one viewpoint complements rather than duplicates the other. If the observer locates a target, he has to direct the sniper's attention to the spot without looking away from his scope. To do this, he "talks the sniper in" by verbally relating the target's distance and angle from easily identifiable reference points.



Clock system for target position

The clock system is a "talking in" technique in which the target's position is determined relative to an imaginary clock centered at a reference point. Straight in front of from the reference point would be at 12 o'clock, due left would be at 9 o'clock, etc. A distance from the reference point is included with the angle provided by the clock to pinpoint the exact location.



Labeling system for windows

In an urban environment, the windows in multistory buildings are labeled to aid in target location. Floors are numbered from bottom to top and windows are numbered left to right in ascending order.

After the targets have been identified, it is the observer's responsibility to prioritize the targets, estimate wind and range compensation, time the wind gusts, and tell the sniper when to shoot. If need be, he backs up the sniper's shot with his own weapon, then reports the result and adjusts the sniper's fire. It is impossible to overstate the need for complete cooperation and collaboration between the sniper and the observer if they are to function effectively as a sharpshooting team.

MINUTES OF ANGLE

A minute of angle (MOA) is defined as a fixed angle that results in a measurement of 1 inch at a distance of 100 yards, 2 inches at 200 yards, 3 inches at 300 yards, etc. The Leupold Mark 4 rifle scopes used by the LAPD SWAT come equipped with windage and elevation adjustment knobs calibrated to ¼ MOA increments. This means that at a distance of 100 yards, 1 clickstop on the knob results in a ¼ inch difference in the placement of the shot (assuming all other factors remain the same). Four clicks equal 1 inch of bullet displacement.

	100	200	300	400	500	600
1 MOA	1"	2"	3"	4"	5"	6"
¼ MOA	¼"	½"	¾"	1"	1-¼"	1-½"

MOAs at 100-yard increments

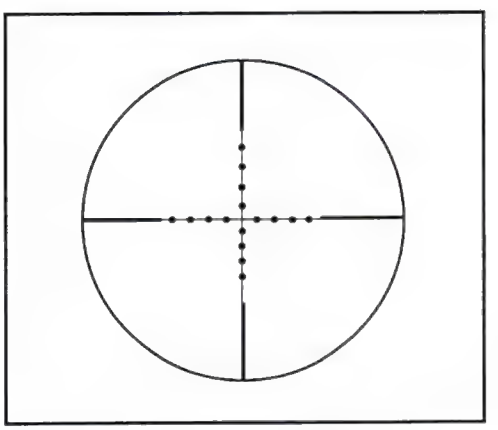
MOAs really come in handy when adjusting the rifle scope so that the shot's placement corresponds with the center of the reticle (crosshairs). Consider a shot at a distance of 400 yards that places 6 inches too high. At 400 yards, 1 MOA equals 4 inches. Therefore, 6 inches equals 1½ MOAs. At ¼ MOA increments, 1½ MOAs comes out to 6 clickstops. You adjust the elevation knob by 6 clicks in the upward direction.

The same principal is used to adjust for horizontal (left or right) bullet displacement. Suppose that at 500 yards, your shot misses target center by 4 inches to the right. At this range, 1 MOA equals 5 inches. Recalling that each clickstop is ¼ of an MOA, you can calculate that at 500 yards each clickstop equals 1¼ inch shot displacement. Due to the incremental nature of clickstops, an exact adjustment of 4 inches is not possible. The best you can do is adjust 3 clickstops to the right (since 3 clicks x 1¼ inches per click = 3¾ inches, only ¼ of an inch off from 4 inches).

Snipers zero their rifles at the shooting range by adjusting the elevation and windage knobs so that the reticle is centered on the target and the shot hits the bull's-eye. This procedure should be done when the barrel is cold (during the first round) since SWAT snipers usually only need one shot to take care of business. Snipers cold-barrel zero their rifles for a distance of 100 yards.

MIL DOT RETICLE

Look through a Leupold Mark 4 rifle scope and you'll see a crosshair with equally spaced dots along the thinner, inner lines. This is called a mil dot reticle. SWAT snipers use the mil dot reticle to estimate target range, lead moving targets, and adjust for wind and elevation.



A mil dot reticle

The term "mil dot" is formed by combining the abbreviation for milliradian, mil, with the word "dot"

which simply refers to the dots placed on the reticle as reference points. A milliradian is an angular width equal to 1/6400 of a circle, or 3.44 minutes of angle. The dots on the reticle are spaced so that the distance from the center of one dot to the center of the next is one milliradian. As this measurement equates to one yard at a distance of 1,000 yards, these little dots give a marksman the ability to estimate ranges simply and conveniently without moving his eye away from the scope.

Yards	Inches
1,000	36
900	32
800	29
700	25
600	22
500	18
400	14
300	12
200	7
100	4

Mil dot equivalents at 100-yard intervals

RANGE ESTIMATION TECHNIQUES

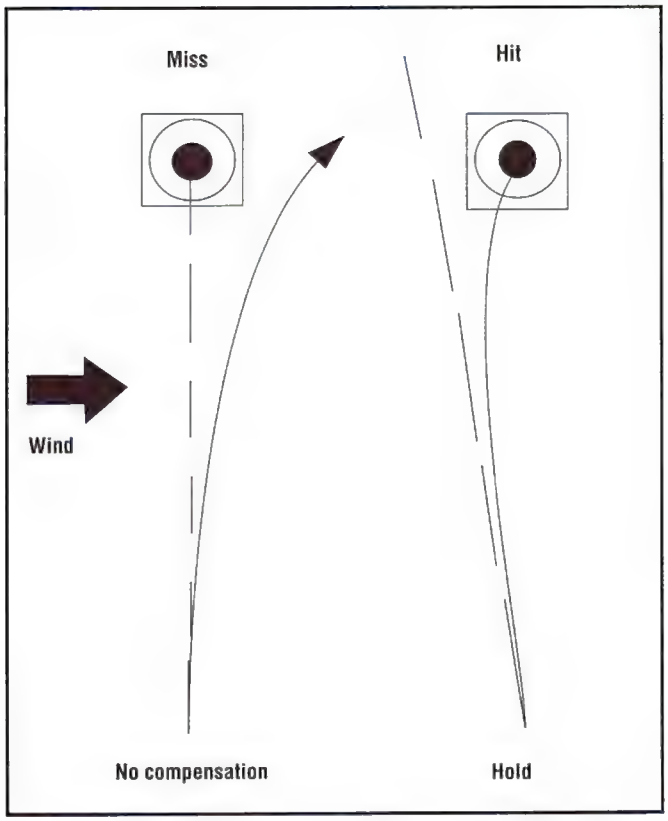
Correct range estimation is the most important factor in placing an accurate shot. The further the target, the greater effect gravity has on the bullet's trajectory. At 100 to 300 yards, a bullet's flight path is relatively flat. However, in the time it takes the bullet to travel from 500 to 600 yards, it will drop 3 feet in elevation. At distances like that, a mistake in range estimation could easily cost you the shot, especially since the error will produce a cumulative effect on wind compensation and moving target leads as well.

There are several techniques for range estimation. If your rifle scope is equipped with a mil dot reticle, the task becomes relatively simple. You compute the range using the mil dots as a relative measuring stick of the target. Or if the suspect hides the same distance away as an upright object such as a mailbox or garbage can, the sniper can measure a similar object nearby (though out of the suspect's firing range), then determine the distant object's height in mil dots and go from there.

The SWAT sniper can take advantage of standard dimensions inherent to the urban environment. A city block makes an ideal unit of measurement, as do other municipal constants such as the distance between parking meters. It's a good idea for a sniper to memorize the values of these "urban yardsticks" for his particular city.

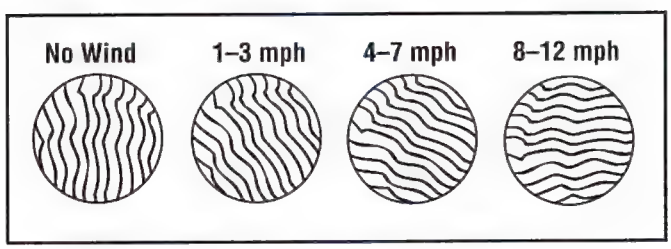
WIND ESTIMATION TECHNIQUES

A mere 10-mile-per-hour crosswind can blow a bullet as much as 100 inches off course over a distance of 1,000 yards. Therefore, windage must be compensated for along with distance, elevation, and target lead. The police sniper's simplest solution is to reposition his hide so that he is either shooting directly into or against the wind, as a head or tail wind has little effect on a shot. In addition, if the target range is less than 100 yards, the wind's influence will be negligible. But suppose the situation leaves the sniper with little choice as to range or position. In an urban environment, estimating wind direction and speed can be a tricky matter complicated by tall buildings and other obstacles.



The wind will blow your shot off target unless you compensate for it.

There are several different methods by which you can determine distant winds. A 3-to-5-mph wind is felt lightly on the face. A 5-to-8-mph wind disturbs the leaves in the trees. An 8-to-12-mph wind raises dust and blows trash around. A 12-to-15-mph wind shakes small trees and bushes. One trick used to judge wind speed and direction is to drop a crumpled piece of paper and point to where it lands. Estimate the angle between your arm and your body. Divide by four to get the wind speed.



Heat waves as an indication of wind speed

Snipers view heat waves through their rifle scopes to determine wind speed and direction. If there is no wind, the heat waves rise straight up. An 8-to-12 mph wind produces horizontal heat waves; winds at lower speeds result in heat waves that rise at intermediate angles.

Once the sniper and observer agree on wind speed and direction, the proper wind-drift compensation can be looked up in ammo-specific tables. The observer should help out by watching the wind and telling the sniper if the wind changes direction or speed. He should also look for periods when the wind is blowing steadily as opposed to gusting. A predictable wind can be compensated for with more accuracy than a temporary calm that doesn't last long enough for the bullet to reach the target.

COMEUPS AND UP/ DOWN COMPENSATION

The police sniper generally zeros his rifle so that the reticle is centered and the shot is accurate at 100 yards. At distances greater than this, the bullet's trajectory will drop due to gravity. To compensate, the marksman must adjust his aim higher using the concept of comeups.

Dependent upon the rifle and ammunition type, a comeup is the adjustment in MOA necessary to go from one distance to another in 100-yard increments. Some rifle scopes, including the Leupold Mark 4, come equipped with a Bullet Drop Compensator (BDC) that allows the sniper to set the elevation knob for various distances.

Yards	MOAs	¼ MOA Clicks
100 to 200	2.25	9
200 to 300	3.00	12
300 to 400	3.50	14
400 to 500	4.00	16
500 to 600	4.50	18
600 to 700	5.00	20
700 to 800	5.75	23
800 to 900	6.50	26
900 to 1,000	7.25	29

.308 comeups

The sniper also needs to consider and adjust for any elevation difference between himself and the target. Called up/down compensation, this adjustment is in addition to the allowances made for distances beyond the zeroing distance of 100 yards. Whether the target is uphill or downhill, you need to aim low. Just how low depends on the range, angle of elevation, individual rifle, and type of ammunition.

Yards	Compensation	Closest ¼ MOA Clicks
100	0.7"	3 (0.74 MOA)
200	3.3"	7 (1.75 MOA)
300	7.8"	10 (2.50 MOA)
400	15.0"	15 (3.75 MOA)
500	24.0"	19 (4.75 MOA)
600	37.0"	24 (6.00 MOA)
700	54.0"	31 (7.75 MOA)
800	75.0"	37 (9.25 MOA)
900	102"	45 (11.25 MOA)

.308 up/down compensation for 45-degree angle

Because calculating up/down compensation is fairly complicated, most police snipers simply avoid it by limiting the distance between themselves and the target to no more than 100 yards. At this close range, the maximum trajectory difference due to elevation is only about an inch.

MOVING TARGET COMPENSATION

The compensation a marksman makes for a moving target is called "lead." Under optimal circumstances, the police sniper waits for a moving suspect to stop, thereby increasing his chances for a successful shot. However, if hostages or other critical factors create a situation that calls for the sniper to fire while the suspect is walking or running, then a lead is applied for an accurate aim.

	100	200	300	400	500	600	700	800	900	1,000
Walk 3 mph	7"	13"	21"	29"	37"	46"	56"	68"	80"	93"
Trot 6 mph	14"	26"	42"	57"	74"	92"	113"	135"	158"	185"

.308 moving target leads

The lead for .308 Federal Match ammunition is approximately 7 inches for every 100 yards if the suspect is walking at a rate of 3 mph. If the suspect is trotting, this figure doubles so that the lead is 14 inches at 100 yards. The sniper team can tell if the suspect is moving obliquely (other than perpendicular to the line of fire) by the visibility of his far arm. If that arm is at least partially visible, then the lead is reduced by half because the suspect is moving across the sniper's field of vision at a relatively slower rate.

If the sniper's rifle is equipped with a mil dot reticle, he can calculate or look up the lead value in terms of mil dots, then take aim and fire. Though this technique may seem unnecessarily complicated at first, with some practice, mil dots allow for increased accuracy and speed over more traditional lead compensation methods.

Chapter Four

Interviews

LAPD Chief Daryl F. Gates, Ret.

"If we were going to maintain civil peace, if we were going to maintain domestic tranquility, then we were going to have to take another look at the way we policed our cities."

Want to hear about the Los Angeles Police Department from a man who really knows? Talk to Daryl F. Gates, a 43-year LAPD veteran and chief of police for almost 20 years. The Watts riots, the Symbionese Liberation Army shoot-out, the Marilyn Monroe investigation, the 1984 Olympic Games — if it happened in L.A., you can bet Chief Gates was there, right in the thick of things.

In a phone interview, Chief Gates spoke about his career, the incidents that motivated him to develop the SWAT unit, the call-ups in which he participated, the crack house tour he gave Nancy Reagan, and the O.J. Simpson trial. To read more about Chief Gates, check out his candid and entertaining autobiography, *Chief, My Life in the LAPD,* published in 1992 by Bantam Books.

Q: To start off, how about a brief rundown of your career with the LAPD?

A: There isn't any way I can give you a brief rundown! Forty-three years with LAPD, almost 15 years as chief, so that's hardly brief. I spent time in every rank and almost every activity that the department has, except some of the specialist activities. I went up through the ranks. In terms of getting some perspective on how long I've been around, I was the captain of the Intelligence division at the time that JFK was killed in Dallas. I participated in that investigation. That was in 1964.

In 1965, I was field commander during the Watts riots. I go back a long, long period of time. But the Watts riots is a good place to begin because that was the genesis of SWAT as it is today. During the riots, we took a lot of sniper fire. And as a result we responded in what I consider to be a pretty undisciplined fashion. We had not faced a riot before in Los Angeles. There had been some throughout the country, but not in Los Angeles. So this was all new to us. Each time we responded to sniper fire, our return fire was undisciplined.

After being the field commander in many, many of these situations, I came to the realization that

we needed some way to respond more effectively. I guess that was one of the problems — a lot of gunfire, but very rarely did we find the sniper! So that began the wheels turning and a lot of discussion. Along with that, as you know, we were involved in Vietnam, and there was a strong feeling of unrest in the country. Kind of similar to what you find today, except in those days it was mostly on the left. There was a feeling on our part that we might find some insurgency, we might find some guerrilla warfare on our streets. It's hard to contemplate, but we thought we had reached that point.

Q: Are you comparing the 1960s social scene to what's going on now with the Oklahoma City bombing?

A: Yes, absolutely. We were facing that kind of a situation except it was coming from the left. We had disruption after disruption in the United States. We had our share of bombings, we had shootings, we had the Black Panthers...

Q: ...and the Symbionese Liberation Army.

A: Yeah, later on, the SLA. We began to realize that from a political perspective, we were facing something different in law enforcement than we had ever faced, certainly in my career. We just believed that if we were going to maintain civil peace, if we were going to maintain domestic tranquility, then we were going to have to take another look at the way we policed our cities. So that also entered into the equation.

Q: What were the first steps you took?

A: We started studying guerrilla warfare in the urban setting. The Marine Corps had done a lot of research. We got a hold of most of that research. We would examine and read everything we could find to try to determine whether or not we could design something that would be in keeping with the legal restrictions that are placed on a civil police force — we're not the military — and still be able to do the job.

Q: What year was this?

A: This would have been after the riots, so it would have been '66, '67, and '68, although we were moving into SWAT in a preliminary fashion by '68. But we'd done a lot of research, and we also had some Vietnam veterans whom we queried. We had veterans from all of the wars, and we picked their brains in terms of how we thought we could approach this. I think it's very, very important to keep in mind that SWAT is different than the military. While from the tactics, the maneuvers, some of the weapons, even the dress, it appears to be very militaristic, it is not! It's just the opposite. That is a major difference.

Q: Almost every officer I've talked to has referred to SWAT as a life-preserving organization.

A: Right, right. Entirely different than the military. While the tactics and a lot of the training are very similar and the ultimate objective is basically the same, to solve the problem, we have to go about it as a civil police force, as a peace-keeping organization. We have to do it within the law. That makes it very, very difficult. In fact, it's more difficult because it places police officers in jeopardy to a greater extent than the military. For example, Delta Force, which is essentially the military's SWAT program, has an entirely different mission perspective than we do in most cases. They're not bound by the legal requirements that we're bound by. In the military, as you know, killing is a part of it. It's winning, winning the battle, winning the war, and if you kill people in the process, that's all part of it.

Q: Do you think a game like *Police Quest: SWAT* serves any purpose beyond that of mere entertainment?

A: Yeah, I do. As with all the *Police Quest* games,

I think it gives the person who's playing the game an entirely different view of what police officers are faced with and how difficult it is. In *Police Quest 4* there was the problem of gathering evidence and, my gosh, we're getting a real lesson in how you collect evidence in the O.J. Simpson trial. In *Police Quest 4,* you got a pretty good look at the fact that you had to collect the evidence, you had to be very careful with that evidence. Criminalists collect it, not detectives as some believed before. So I think in the *SWAT* game what we're doing is teaching people that we don't live on violence, that the police don't respond to violence with violence unless it's absolutely essential and absolutely within the law.

Q: I'm writing the tactical education section of the game so I've been learning quite a lot about how complicated it all is.

A: That's right. It's an incredibly difficult task. It goes slowly, as they've probably told you. You don't just rush in. When I was a young police officer, that's all we did. We'd say, "You take the back, I'll take the front." We'd kick the doors and that would be it. There was no thought to it.

Q: The crime scene in L.A. has changed so much that if police officers did that now, they'd be getting killed off in droves.

A: That's right. People out there are heavily armed. They are aware of police tactics. They're much more prone to use a weapon. Growing up in the department, yeah, there were people out there who were willing to shoot you, and would shoot you, and did shoot police officers, but there was more hesitation than there is today. Now there is no hesitation whatsoever, none, zero.

Q: It seems like there was a lot more anger in the '60s, with the Vietnam War and everything, but that people are a lot more violent now.

A: There's no question about it. Violence has been a part of the American scene now for a long period of time. When we talk about the American scene, we're talking about movies and just about everything we use to communicate with each other. Violence, unfortunately, is an everyday occurrence in almost every community.

Q: The O.J. Simpson trial: With such a popular media figure on trial for such a horrendous crime, do you think that's going to change people's attitudes, the way they look at violence? It's turned into such a circus.

A: This is such a unique case and it's become such a media event, that it's really hard to judge what is going to come out of all this. I know one thing has come out thus far, and that's a great deal of cynicism regarding our whole system of justice. There are an awful lot of people who believe that there will be a hung jury. So that has developed a lot of cynicism.

Q: When I went to SWAT the officers were watching the trial on TV. No one really said anything, but I just got this sense of disgust.

A: Well, several things disgust police officers. First, the defense tactic of suggesting that this is some kind of a frame-up, planted evidence. That's so far-fetched in the minds of police officers that it's laughable. But here is the so-called dream team using this as a defense. So it really grates on all of us who are in the business, who have been in the business for a period of time, who do these things on a regular basis. The furthest thing from our minds is to frame somebody. My God, what would be the point? Particularly in this case, what would be the point?

Matter of fact, it's just the opposite. If O.J. had any fans, you'd probably find more within the police ranks than almost anywhere because they're sports fans, they love football. He's a home-town hero from a sports standpoint, so it'd be just the opposite. There would probably be an effort to help him rather than hurt him. That makes it even more preposterous. But again, all those lawyers making this suggestion, they're doing it for one reason, and that's to find that one juror in whom they can raise a reasonable doubt. That's what it's all about.

Q: Back to SWAT. How about some more on the early days of SWAT?

A: It was an evolving thing. We had a shoot-out that convinced me it was absolutely essential we develop a disciplined response to a barricaded criminal.

Q: Was this the Surrey Street shoot-out?

A: Surrey Street, yes. It was an incredible thing. There was some kind of a call. A one-officer unit responded. He went to the door, knocked on the door, and the guy came out and shot him. The officer was wounded, fell on the front lawn. Just as another officer in a single unit drove up, the suspect retreated into the house, took a high-powered rifle and shot the second officer. As a matter of fact, the shot went right through the door post, which is the thickest part of the car. It went right through that and hit the officer. So we had two officers shot almost immediately.

Then there was the same kind of police response that we had during the riots. I rolled on it. The first thing I noted was that we had the place surrounded, but we had police fire coming from every direction. First thing I did was say to the captain, "My God, we're shooting at each other! You've got this place surrounded but we're firing into the house and one of those stray bullets could go in the direction of one of the police officers."

We had an additional one or two officers wounded, and I think one of them was wounded by one of our police officers. I didn't try to press that, but I believe that's what happened. This was the first time we ever used shotgun slugs instead of .00 buckshot. We used a wad that comes out in one piece, a lead slug that comes out with tremendous power instead of distributing itself as the shot does. We were shooting those damn things for the first time, and they were going right through the walls. I was kidding people afterward. I said, "They were going through the walls, right through the roof, so that when we finally put gas in the place, the gas came out like a sieve." We couldn't keep it inside!

That was really a wild shoot-out. Again, that emphasized what I'd learned during the riots, that we absolutely had to put some kind of program together that would assure a disciplined approach to these kinds of situations. So that gave further impetus to SWAT. At that particular time, we had formed up a 200-officer task force under my command to look at crime generally in the city, and also to deal with the problem of a series of bus robberies.

Q: So before that, Metro wasn't a specialized division?

A: No, Metro was specialized, but it was more of what we used to call "shake, rattle, and roll." They had about 50 or 55 officers. They worked on labor disputes and special crime situations, stake-outs and things of that nature. And they were good, but it was a pretty ragtag group in many respects. Pretty rough. Top-notch police officers, but they were very rough. They did a lot of good work but not with the kind of disciplined approach we wanted. At that time, we had firmed up our sniper details and begun the training. We used many of the people out of Metro in that training. So some of them came to me and said, "Why can't we bring all of this into Metro?"

Q: All the officers were working out of separate divisions at this point?

A: Yeah, they were all working out of separate divisions. First of all, they said, "Some of these guys we don't want. There are many that we do want and there are some additional people out there that we want. So why can't we bring them all into our Metro division?" I said, "I don't see why we can't." I went to the Chief and told him what we wanted to do. It was Tom Reddin at the time and he was supportive, so we brought them in.

That was the beginning of what now is called SWAT, though we didn't have a name for it at the time. We just brought them in and began developing really almost entirely new concepts within Metropolitan division and within a police department. Working in squads — we had never done that before. We did it during the riots — that was another offshoot of the riots. Then the forming up of platoons so that we now have D Platoon, which is our SWAT.

Q: Did you go out with SWAT on call-ups?

A: In the initial days, I would do that quite often. Later on, it was more difficult. When I was chief, I'd go out as often as I could, but with the press of business on so many things, I did not have the opportunity to do that. But any time an officer was hurt or shot, I certainly went on every single one of those, and SWAT was involved in a lot of those. And of course when SWAT was assisting our narcotic officers in serving search warrants, because we use some different kinds of tactics like the battering ram, I went on every one of those. As a matter of fact, the first time we used the battering ram, I was right there in the battering ram cockpit. I wanted to make sure that with this new technique, if there was going to be any criticism, I would be right there to take all the criticism.

"The first time we used the battering ram, I was right there in the battering ram cockpit."

Q: Did things go well on that call-up?

A: It went well. The unfortunate part of it was that the dealer had run out of dope just a little bit before. Once we made the buy, we were a little slow in responding. In the interim, the dealer had run out of dope and had left to go get some more. We hit the house before he got back so though we did find a little bit, and we knew he was a dealer, it could have gone a lot better. Tactically, it was beautiful. Tactically, it couldn't have gone better.

We arrested him and the people in the house. However, there were a couple of little kids in the house, which was not something we were happy with. But you learn from that. One of the things we learned was that a little more scouting has to be done, a better preliminary investigation to make sure there are no kids in the house, make sure that there is dope in the house, make sure that the buy and the entry are almost simultaneous. Get the buy and you're ready to go with your entry so there isn't this delay. So we learn in each one of these cases. I took a lot of criticism over the use of the battering ram, but it was tremendously effective.

Q: Do they tend to go more with explosive breaching now?

A: No, one of the reasons we used the battering ram was because we were using explosives on the doors, and we decided that was a pretty risky business. Understand that we're talking about the crack houses. This is when we were dealing with fortified crack houses, places where they put steel on the windows, steel on the doors, little slot in the door for the dealer to stick the dope out. You stick your money in and you couldn't identify who the dealer was. That's why we had to get inside and get them with the dope after a buy. What the battering ram accomplished was that all of the fortified rock houses disappeared. Slowly but surely, dealers decided there wasn't any way they could operate with the battering ram. If they fortified their base of operations, we were going to take them. So that was a tremendous success.

Q: Was it about this time that you took Nancy Reagan on a tour of a crack house?

A: Well, that was a little after that. A lot of the fortified houses had disappeared. We didn't have to use the battering ram. We still used SWAT and we used SWAT that night. We took Mrs. Reagan to a place where they sold and smoked crack. People inside were armed, so that's why we used SWAT to take them. That was a very successful operation, very successful.

Q: And the First Lady was on the call-up with you?

A: I had asked her once if she wanted to take a look. She had been involved in the crusade against narcotics for a long period of time. I asked her if she really wanted to go out on the street some time. I was just kind of passing time, I didn't ever think she would. I said, "If you'd ever want to go out some time, I'd be glad to take you out." Lo and behold, she said, "Oh, I'd love to!" I said, "Well, OK, let me know." Her secretary called me and said, "When would you like her to go?" So I was kind of caught. I thought, "Uh-oh, I've got to take her."

So we took her out and let her watch our officers engage in street buys, hand-to-hand buys. We had a trailer fixed up and we parked the trailer in the area. She could look out and see the officers make the buys. So we watched that in the afternoon, and then we were going to take this crack house in the evening. Again, we had the same problem of resupply, so there was a long delay. But finally we went, and we took Mrs. Reagan. I told her that she couldn't go out and watch it. She said, "You promised." I said, "Your husband and the Secret Service are not going to go for this." She said, "You promised." So I said, "OK, just defend me when your husband is irate."

"It gives you a sense of terrible despair."

I told her to just lay down in the back seat of my car. We went in the entourage with the SWAT people and then we pulled up about 25 yards from the house. SWAT approached it. She was still in the back seat. I told her, "Well, come on out. You might as well." So I kept her behind the car but where she could see. Then SWAT hit the place with the flashbangs and scared her totally. She jumped into my arms! And anyway, it was a very successful operation. We took her through

and she got to see a real crack house, actually it was a crack house/smoke house. A lot of people were in there.

Q: Was she surprised? From the pictures I've seen, it's amazing how disgusting the houses are.

A: Anyone who sees it for the first time...it gives you a sense of terrible despair. You think, "My God, human beings living like this. Human beings in this situation, dirty, filthy." You see how low human beings can sink. So anyone seeing it for the first time is shocked. And she was shocked.

Q: Can you tell me about any other noteworthy call-ups that you've been on?

A: Oh boy, there have been so many. It's been depicted several times, but one in particular comes to mind. As I remember, it was in this hospital. This nut took two nurses as hostages. He had them all covered so that you couldn't tell who was who. He'd asked for a car, and SWAT provided him with a car. He was going to leave with these two nurses. Talk about a hair-raising situation. SWAT took him down in the car. The guy was sitting in the middle of these two nurses and it was almost impossible to identify who was who, and yet SWAT was able to do it and killed him.

Q: How did they single him out?

A: Well, there were telltale signs they were able to discern in a split second, and that's all it was. They came up on both sides of the car and in just a split second they were able to identify him. They killed him and rescued the two hostages. They were safe. He had already killed one or two people so it was a very, very dangerous situation, but they were able to do it. I think that this was probably one of the most action-oriented and tense situations that I've ever seen.

Q: I read that you've been used as a hostage in some of the training scenarios.

A: That's one of the delights of SWAT is to get me in to be a hostage. They just love it. I kind of like it myself. I have total trust in these guys, total complete trust.

Q: They're using live ammunition, right?

A: Absolutely, every time.

Q: I imagine you sit pretty still.

A: Yeah. You'd be foolish to make any moves that were not appropriate to the situation so you're right. You sit still, very, very still. They all laugh at the time they threw the flash grenade in and I had a brand-new shirt on. They threw it too close and burned holes in my shirt. They loved that. They just thought that was the funniest thing in the world.

Q: Thank you for talking to me, Chief Gates.

A: My pleasure.

SWAT Officers

SWAT. The name conjures up vivid images of intimidating figures clothed in black, armed to the teeth with automatic weapons. Silently, stealthily, they surround a barricaded house. There's a sudden explosion and all hell breaks loose. Men crash through the doors yelling, "Police! Drop your guns and put your hands in the air!" You hear bursts of gunfire, screams, and then a sudden stillness broken only by the protests of the captured suspect.

Sorry to disappoint you, but if that's what you imagine when you think of SWAT, you've been watching too much TV. First and foremost, a SWAT officer is a professional. The crème de la crème of the LAPD, these 60 men have the dedication, talent, physical strength, and mental discipline to take on the craziest psychopaths the City of the Angels can throw at them. Not only do they have one hell of a tough job, but they have to do it under the microscopic scrutiny of the citizens, the media, and the politicians.

First and foremost, a SWAT officer is a professional.

In SWAT's 28-year existence, D Platoon has never lost an officer. A record like this is not a matter of luck. The officers train constantly, striving to improve their skills and the tactics necessary to defuse potentially lethal situations. When a crisis occurs, the unit plans the response mission with the forethought and attention to detail of a surgeon preparing for the operating room.

So who are these guys anyhow? What kind of person puts his life on the line on a daily basis, risking everything to rescue people he doesn't even know? At this writing, all SWAT officers are male, although women continue to apply (but in such few numbers that the probability of earning such a sought-after position isn't too high). All SWAT officers are in terrific physical shape. Each officer sees himself as part of the team first and as an individual second. They rely on each other with a trust that is based on the sincere belief that each man has the ability and courage to do his job right. And while no one could take the job more seriously, they

continuously play practical jokes and kid each other mercilessly.

In recognition of Tammy Dargan's attempt to portray an accurate account of SWAT in a computer game, the powers that be at the LAPD were kind enough to loan Sierra On-Line a half dozen of SWAT's finest officers. These gentlemen each took a one-week tour of duty at Sierra's video studio in Oakhurst. Serving as technical advisors, they provided invaluable guidance, coaching the actors in tactical movement, validating Dargan's scenario design, and generally adding those details that only a professional would know. This section contains interviews with those officers. They proved to be as generous with their stories as they were with their time.

Although SWAT officers may appear identical (and intimidating) in their BDUs and balaclavas, they come in all shapes and sizes. At 138 pounds, Rick Massa is the smallest guy in the unit, while David Cervantes is a well-muscled, gray-haired guy who plays on the LAPD football team. Greg Horton has four kids and is a First Sergeant in the Army Reserve. Lou Villalobos works security detail on movie shoots. Bob Bennyworth paints southwestern landscapes in his spare time, and Steve Stear does wicked imitations of his fellow officers. The following interviews reveal the men beneath the uniforms. In articulate and candid words, each officer discusses his most exciting call-ups, the humorous goof-ups, and the motivation that drove him to become a member of LAPD's elite D Platoon.

Greg Horton

Photo by Rod Fung

"I felt that my colleagues were in danger so I shot him and stopped the scenario right there."

Q: You're a Policeman 3+1 in SWAT. What does the 3+1 in your rank refer to?

A: I'm an element leader. The 3+1 is just what they call the advanced pay grade position. I have an element of four officers that I'm in charge of when we do the tactical entries.

Q: When did you join the police force?

A: I joined the department in January of 1973. I was 23 and had just gotten out of the Marine Corps. I applied for the department while I was in the Marine Corps.

Q: When did you become a SWAT officer?

A: I went to Metropolitan division in 1980 and I went to SWAT in 1981.

Q: Did you go to Metro with the idea that eventually you'd like to be in SWAT?

A: Yes. I told them in my interview when I went in that I would work a year in B Platoon. I did, then I applied and was accepted into SWAT.

Q: So you were in SWAT during the 1984 Olympic Games. Did you see a lot of changes in SWAT during that time?

A: We made some tremendous changes. Back then, we did a lot of stealth work, concentrating on what we call our covert entry, our barricaded suspect entries. In gearing up for the Olympics, we went to almost exclusively a counter-terrorist organization.

Q: Is that change still in effect today? I know you encounter a lot of barricaded suspects.

A: Indeed, I think the pendulum swung back a bit. For a while there we did nothing but close-quarter combat and dynamic entries. Now it seems we've reached a happy medium because we've actually had two hostage rescues where we've used explosives to make entry. So we still need to do that, but we also have a lot of high-risk narcotics warrants we serve, which is pretty much the same thing as a crisis entry. And we do have a lot of barricaded suspects where we have to use our stealth tactics to enter the house.

Q: How does being in SWAT differ from regular police work?

A: Metro differs from regular police work in that we're free from the radio calls. But SWAT is even more removed from that because we train alot. Because what we do requires so much teamwork, really knowing what your partners are doing, we are given quite a lot of training. I'd say that's the major difference.

Q: And the call-ups tend to be more crisis oriented, less routine.

A: Well, that's why we do so much varied training. You can't say this is going to happen exactly for each call-up because every single one is so different. There's the human factor, a different location and things going on, and so every single one of them requires you to be real flexible, and you've got to think on your feet a lot.

Q: Any examples of how you go about training for the worst-case scenario?

A: One of the things we'll do when we're doing a hostage rescue scenario is to train in a building downtown that has 30 rooms in it. We train for 25 to 30 rooms. That way if the big one's gonna happen, we're prepared for it.

Q: When you're training for 30 rooms, does the entry team clear one at a time or do you take more than one at a time?

A: What happens is on a big scenario like that, we'd probably use 30 to 40 guys. We have a plan, we develop a strategy. Then you send your teams down. Teams of two will go into a room. You never clear with less than two. So teams of two will go into a room and clear, but the big train keeps moving.

"Teams of two will go into a room and clear, but the big train keeps moving."

Q: Are you cross-trained in any specialized equipment or tactics?

A: I'm an element leader and I'm also the sniper coordinator. We have two sniper supervisors and then I'm in the position of sniper coordinator.

Q: How many snipers are in SWAT?

A: Right now we have 16. But they're not exclusively snipers. They're element members who are also trained as snipers.

Q: From what I've read, shooting as a sniper is very complicated.

A: It's not just picking up a rifle. There's still a lot of factors you have to consider. One of the main ways in which we differ from military snipers is that the military snipers are in Ghillie suits and hidden in hides, but they're usually 600 to maybe 1,000 meters away. It's hard to detect them. What they have to worry about is being detected and chased by patrols after they shoot.

"You have to be like a chameleon."

We deploy anywhere from 20 to 100 yards away. We're easily detected with the naked eye; you don't need binoculars to see us. Most of the time if we're going to be deployed, it's against an armed suspect. If he sees us and we haven't been skilled enough to build an excellent hide or camouflage our Ghillie good enough, he's going to shoot us. You have to be like a chameleon.

Q: Can you tell about a particular call-up in which snipers were deployed?

A: The Hall of Records was an elaborate sniper situation. This didn't get a lot of press because an hour after the whole thing ended, the earthquake hit L.A., so needless to say it was on page 222 in a little box. But for us, that was an extremely elaborate scenario.

We had five sniper positions. We had two up in the Court building across the way, hidden in the shadows. They set up in there, looking down on the scene. We had two on ground level who positioned themselves in between some cars. They put up some material there and actually blended right in as if they were part of the cars. And then I had my Ghillie suit on and I was covered in reeds. I put reeds in my Ghillie suit and I was lying up above the exit to the Hall of Records in a planter.

"I was lying up above the exit to the Hall of Records in a planter."

That took a long time to set up. Then we ran some trials where we had some policemen actually walk out like they were the suspects with the hostage to see if they could see us and if we had all the angles covered. The suspects wanted a Brinks truck and a sum of money, so we parked a Brinks truck out in front, but we wouldn't have allowed them to get in the truck. That was a last-ditch option. All your open-air sniper scenarios, an open-air assault, anything like that is going to be your absolute last-ditch effort. We have our crisis negotiators — I'm a member of that, too. We'll talk our lips bloody to try to get people to give up.

Photos by Rod Fung

Q: Have you ever had to fire a gun at a suspect? I know it's a rare occurrence.

A: It really is. Unfortunately, because of that TV show *SWAT,* everybody still thinks we jump out of the back of a van with M-16s blazing and have big, huge gun battles. That's not true. I've been on the force 14 years and I've only fired my gun once.

"Everybody still thinks we jump out of the back of a van with M-16s blazing."

Q: Do you mind telling what the circumstances were?

A: He killed the police officer, and I was the one who ultimately ended up...he was going to come out and try to shoot some of our people, and I ended up shooting him.

Q: You were in a sniper position?

A: I was in a sniper position. My partner and I were in the second story of an apartment about 30 yards away, and he was coming out. He'd already shot at police officers he had seen. We ended up building a hide, so we got in our position undetected. He came out and looked in our direction five or six times. He was talking to our crisis negotiators on the phone and he told them, "Hey, in 10 minutes I'm coming out shooting."

Shortly thereafter he came out on his hands and knees. He had the gun in his hand, and it looked like he was going to come out. We had guys all around on the perimeter. There was a very tragic incident in San Diego where a guy came running out and managed to shoot one or two of the officers there. That kept running through my mind. I felt that my colleagues were in danger so I shot him and stopped the scenario right there.

Q: I know that when an officer fires a gun, there's an extensive investigation afterward. Was that stressful?

A: It's always stressful because you sit down and run the scenario through your mind: Could I have done anything different? What could I have done different? Will the administrators see it through my eyes? The hardest part is trying to put in words exactly what ran through your mind. A lot of times the things you prepare for, the things you think about go by in a split second. It's hard to come back and break them down from 1,000 frames a second to 30 frames a second. Because you have to sit there and you have to say, "Well, yes, when I heard that he was going to come out shooting, in a millisecond all the film I had seen about the San Diego incident flashed through my mind. It just went 'whoosh' right through my mind."

I said, "Now this guy will come running out and he'll be shooting as he's running. I knew the assault team was right around the corner and sure, they've got vests and helmets on, but he was real lucky in killing Chuck and wounding Chuck's partner. He could be lucky again and kill one of my close, personal friends if I wasn't on my toes. If my attention lapsed for a second, he could go 20 feet in a second, running and shooting."

So how do you put all that together when you're being interviewed by the people on the investigation teams? You have to be able to put all that in words, to tell exactly why you did what you did, and why that was in policy.

Q: And is that how they ruled?

A: Yes. It was in policy. He was presenting an immediate threat. He had shot and killed an officer. He had shot and wounded an officer. He had shot at three other officers that morning just two hours earlier and then he had said he was going to come out shooting.

Q: It sounds pretty cut and dried. Well, let's lighten it up. Any humorous incidents? I've been told you guys play a lot of practical jokes.

A: I put a smoke grenade on the front of a sergeant's car. We were out on the range. I tied it to his tie rod with wire and then put a rock with a little string on it. As he started to pull out, it went off and covered his whole car with smoke. He was out running around in the smoke, jumping up and down. He thought his car was burning up. He was trying to hit it off with a stick, yelling, "It's on fire! It's on fire!" My partner and I were behind the building, rolling on the ground laughing. It was an incredibly comical scene.

Q: Sounds pretty entertaining. Is there anything you would like to say about the reality of SWAT versus what people imagine SWAT is like?

A: Well, yeah, everyone thinks we're always out running around doing these wonderful, neat things, but they don't realize that it can be very tedious. When these situations go on 10 or 12 hours, and the negotiators are talking to the suspect — if you're a negotiator, it's great because you're working the whole time. But we immediately set up on these things and then we wait and wait and wait and wait.

If we serve a narcotic search warrant, those only take 30 to 40 seconds to make entry, get in, and arrest everybody inside the house. So what happens before we have that minute of glory and thrills and flashbangs going off? It's all preparation. You go down and you train, train, train,

"We wait and wait and wait and wait."

train, and then in order to prepare for the warrant, the element leader will go out and take photos. We'll work the area up and get a tactical plan because when we serve a search warrant, it usually involves people who are armed. So we don't just go in there blind. We'll come up with a tactical plan, assign people their jobs. This will take maybe a day, maybe two days, depending on how complex the scenario is. It's a lot of work for a very short period of reward, but the rewards are very adrenaline filled.

Q: Then afterward there's the satisfaction of having taken some very dangerous people off the street.

A: Yeah. When we hear the next day what the detectives found there, if it's a good haul, then it's high-fives all around.

"If it's a good haul, then it's high-fives all around."

Lou Villalobos

Photo by Rod Fung

"Anybody who tells you they're not afraid in this business is a stupid idiot or they're not telling you the truth."

Q: You joined the LAPD in 1970. Why did you become a police officer?

A: I don't know. Maybe it was an idealistic attitude. I guess I still have one. There are some people in this world that want to get away with things without answering for them. Everybody's responsible for their own actions. I think some people in this world don't want to be and so they intimidate and step on other people as their means to an end. If there isn't a group of people there to police such people, I think the world would be chaotic, more so than it is now.

Q: It seems like things are getting a lot worse, at least in Los Angeles.

A: Yeah, I've noticed it in the past 25 years. Things were pretty busy back in 1970. We had the last elements of the Black Panthers. The Weather Underground was still pretty active, too. They were of a political nature, but still, their means to their ends were through terrorist activities. So we were pretty busy at that time. But now we've gone to the little urban neighborhood terrorists who are just as mean and just as nasty.

Q: The gangs?

A: Yes.

Q: But they don't have a cause.

A: Believe it or not, they do. It's not political. It's more inside them, more of a personal thing. They grow up with it. I'm not making any excuses for what they do, but a lot of these kids don't have family. They don't grow up with a sense of responsibility that's instilled in the family circle. The only family some of these kids have is the gang they join.

"The only family some of these kids have is the gang they join."

Q: And the gangs teach them distorted values.

A: Absolutely, but they have a feeling of belonging. I think this is what anybody really wants. Unfortunately, one of the only places some of these kids can find it is in a gang.

Q: How long have you been a SWAT officer?

A: I've been in SWAT for about 14 years now.

Q: Are you cross-trained in any specialized equipment or tactics?

A: I'm a team leader. I don't know if you would consider that being cross-trained, but I'm supposed to be up on everything that everybody in the SWAT unit does, their capabilities, and with what weapons. If I am setting up a search warrant or barricade situation, I have to consider who's going to have what weapons and what position or what job they're going to be doing. If I don't think he can cut it just by knowing who he is, seeing him train, and knowing his personality, then I won't put him in that position.

Q: You have the members of your element assigned to you, right? You don't line them up and pick them like a baseball team.

A: Yes. Well, it actually could be a combination of the two. When I get into a team-leader position, most of the time the element is already there and you just go into it. But you can have the luxury of picking out a few guys that you want on your team. You have a basic five-man team: your team leader and your four guys. They are assigned to you. But let's say one guy on your team wants to go to another team because he wants to hook up with a buddy of his, then you can ask somebody else to come onto your team.

Also, when we have a big situation such as a warrant or a barricade, you're obviously going to need more than your team. And other times some of your team members aren't there, they have days off or vacation or whatever, so you can pick someone else to fill in as part of your team. That's the beauty of our unit. We're slated for 60 guys in our unit. We all train the same. That's why we can interchange so much. I can take somebody from another squad, put him in my entry team, there's no problem. We all work in line together.

Q: You were in SWAT during the 1984 Olympics. It sounds like a lot of things changed then as far as training goes.

A: Prior to the Olympics, a lot of our training methods were centered mostly on the so-called "normal" barricade situation where you have somebody in a house either with hostages or not. We would contain the exterior, fire tear gas or not, and then go in after him in a slow, methodical manner using mirrors, covering techniques, and the whole thing.

As the Olympics came up, we had the very possible terrorist threat. So our bosses in the SWAT unit, the lieutenant, one of our lead sergeants,

our senior sergeant, a captain, and a commander toured Europe. They got different ideas, different training techniques from the counter-terrorist units in Germany, France, England, and Italy. Then they came back with these training ideas and incorporated several that would be suited to our needs. Consequently, we went from two to three days a month to constant training from about mid-1983 to mid-1984 when the Olympics started.

"Training included rappelling...."

Training included rappelling, fast-roping out of the helicopters, and hostage rescue techniques that are different from your normal barricade. It was a lot faster training. We went from third gear into fifth gear. It was pretty intense and involved a lot of constant work.

Q: I read in Chief Gates' book that the only incident at the Olympics involved a police officer. What can you tell me about that?

A: I'll tell you what I know. I knew Jimmy Pearson personally because he was in Metro. He was not in SWAT, but he was in Metro. I think he was frustrated. He wanted to be in SWAT. He had applied for SWAT a couple times and he was turned down. For whatever reason, I don't know. Maybe they saw something in him that they didn't want. I guess that turned out to be true.

From what I understand, there was a bomb found in one of the busses for the Olympic athletes. I believe it was at the L.A. airport. The bus had pulled up to the stairs into the terminal and the athletes got off. Then lo and behold, Jimmy Pearson sees the bomb underneath the bus in one of the wheel wells. He didn't call the bomb squad. He just took the bomb off the bus himself. So he was the one who found the bomb, who defused the bomb — the big hero. As it turned out, he's also the one who planted it there.

Q: What percentage of applicants make it into SWAT?

A: We only take our people from Metro, not from outside the division. We had approximately 35 to 40 apply and we only took 12. It depends on how many positions we have to fill. Right now we're down about five or six people in our unit, and I guarantee we'll have at least 30 apply.

Q: Have you ever had to fire your gun at a suspect?

A: Yes, but not while I was in SWAT. It was a stupid mistake on my part but I don't mind talking about it. I was working a black-and-white patrol unit and there was a radio call that came out, a robbery in progress at 65th and Figueroa. We were just down the street.

This place at 65th and Figueroa was a bar, right on the northeast corner. I came southbound on Figueroa. I saw the bar. I make a U-turn, come back up on it, and I park, like a stupid idiot, right on the corner. Not directly in front of the location, but right on the corner. Because of the radio broadcast, the only thing in my mind was that the robbery was in progress inside the bar. I get out of the car. My partner starts to get out on his side.

I see on the sidewalk a young black female talking to a young black man. They were both in their early 20s. She was facing me. He had his back to us. She looked over his shoulder at us. I get to about the hood area of the car. I still had the car between me and the two people on the sidewalk. I don't believe my partner had gotten out of the car yet but everything happened very quickly. As I got to the hood area, she looked at me. She had a look on her face that I'll never forget. She had a lot of guts. She said, "He's got a gun" to me. Not screaming or anything, just loud enough where I could hear it.

At that time he turned. He never turned around completely, just looked over his shoulder. He sees us. I still kept walking. Now I'm toward the front of the car. He looked over his shoulder but he never did show me his hands. They were completely hidden from me with his body. I believe I took out my weapon and I pointed it at him but I stopped. I'm still out in the street. I have a telephone pole on my left side and I have the front of the car to my right. My partner is about halfway out of the car.

Now this guy starts to walk to his right. He's going to the corner of the building. If he makes the corner of the building, he can take off going eastbound on 65th Street. He's not walking like a normal person. He's kinda walking sideways. What he did not want to do is turn around completely. He still didn't want us to see his hands. I'm yelling at him, "Let me see your hands! Let me see your hands!"

He took about five or six steps to get to the corner of the building. The whole time I'm yelling. She stays where she's at. He walks to the corner, very calm about it. As soon as he hit the corner of the building, he went around it and flattened himself up against the wall. So now he's sideways to me, mostly out of sight. Then he came out with the gun and fired several times at me. I returned fire. My partner also shot at him. The guy ran down 65th Street, shooting. We ran after him.

By then, other units were also responding to the initial robbery call. Right after the shooting went down, my partner quickly grabbed the microphone and put out a help call, shooting in progress. He put the mike down and both of us ran after this guy. We ended up catching him.

Q: It sure doesn't sound to me like you did anything stupid.

A: The stupid thing was parking where I did. That's one thing that you don't want to do. And another thing is that I had a narrow-mindedness about it. I was assuming that the robbery was going on inside because the radio call came out that way. But I should not assume that is always the way it's going to be. I should be expecting anything. What we found out later is that this guy was robbing the bar. He had another friend with him. These two guys went in this bar, robbed it, and pistol-whipped several people inside.

Then the one that we got, he came out the front door. He sees this young lady walking down the street and he figures he's going to rob her before he leaves, just one last little extra bit of money, I guess. So he was in the process of robbing her when we drove up.

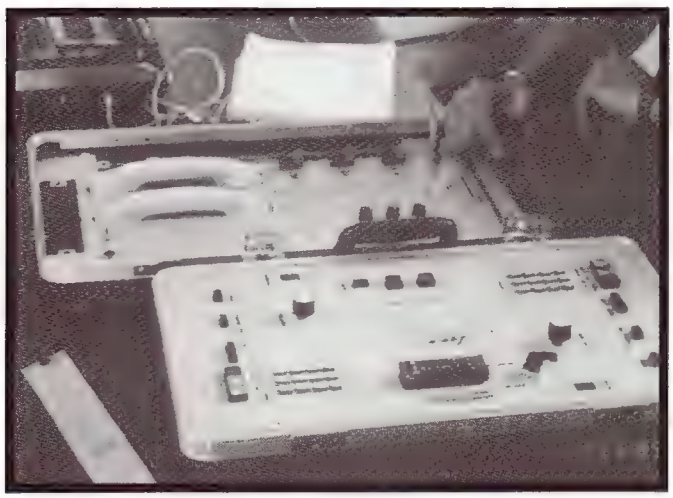
Q: So a happy ending. Can you describe an exciting or unusual call-up that you were involved in as a SWAT officer?

A: There was an incident that happened several years ago. A man was upset with his lawyer. He had brought some sort of a lawsuit against the company he was working for. He got hurt on the job or something. He didn't get enough money if he got any money at all. He felt that the lawyer wasn't doing him any justice. And this was a high-priced lawyer in Century City.

He went into the office looking for the lawyer, but the only one there was the secretary. So he kidnaps the secretary and takes her into the conference room. The layout of the office consisted of the front desk which the secretary was at, the

waiting area, the conference room, and a hallway to the right with doors to the other offices. He took her in the conference room, closed both doors, and now we have a hostage situation.

We were called out. We contained the floor. He was demanding food, he was demanding a phone, he was demanding money.



"First, we delivered the phone to him."

First, we delivered the phone to him. What we did was we put a cover man up on the door so that if he comes out with a weapon we can take care of the problem. The SWAT guy behind the cover man comes up with the phone. He places the phone in front of the door on the floor and then we back off. The hostage negotiators (who have contact with the guy via a radio or bullhorn) tell him to pick up the phone.

He has the hostage open the door. He has a hold of her so she doesn't bolt out, but he's not exposed because he doesn't want to be taken out by a sniper. She grabs the phone and takes it back in. Now we have phone communication with him. Now he wants food. We do the same thing. We put the cover man up there, have the other guy deliver the food by putting it on the floor, and then we back off. Again she opens the door and gets the food. The same thing with the money.

What I forgot to mention is that the whole time this was going on, he was saying he had a gun and was going to blow her head off if this wasn't done. He also said he had explosives in his knapsack and was going to blow the building up if he didn't get what he wanted. So we had this to contend with, a gun and explosives. Well, it lasted about four, five, six hours. The ultimate conclusion was we got approval to do an explosive entry on the conference room.

Q: Because he wasn't negotiating?

A: He was not negotiating. There wasn't any progress at all. We had done with the negotiations. So we had to make an entry, and the only way we could do it would be full surprise. We couldn't beat down the door because he couldn't have any provocation. We couldn't go in through the window because it's on the 32nd floor. We figured we'd do an explosive entry. An explosive entry really hadn't been done before. We had trained with it but we hadn't put it to any practical use.

We got a hold of the Bomb Squad. They were called up and told what we wanted. They saw the type of door, identical to the one we were working on, in another office on another floor. They figured out how much of a charge they would need to blow a hole in the door big enough for men to go through. So they shape flex cord, which will usually blow in the shape that you want it to. They put it on a piece of cardboard. Then they tape this cardboard right up against the door.

One of my partners creeps up to the door and places the charge very quietly because we don't want the guy to hear what's going on from his position inside. We backed up very quietly, and my partner made sure he unrolled the wire all the way down to where we were because he had to command detonation. We had the detonator back in the office. It was just a matter of leading a wire back to the detonator and hooking it up. Over the radio we told our lieutenant that everything was in place, just waiting on his orders to blow the door.

"We asked that a helicopter be flown over and near the window."

We needed a diversion because we didn't want to chance having the hostage directly on the other side of the door when the door blew. We wanted them away from the door. So we asked that a helicopter be flown over and near the window. That way, human beings being what they are, they see a helicopter out the window and they'll go to the window, which was on the other side of the room from the door. This in fact happened. The helicopter was out there flying over the window, and both he and the secretary went to the window.

We got the signal over the radio to blow the door. We did. As soon as the explosion went, I came out of the room and down the hall. It was just a matter of 10, 15 feet. I see this big old hole in the door and I went through. My partner came in behind me. I came up with my weapon. I'm scanning the room for this guy. I see him crouched down in the far corner of the conference room. He has the secretary over him as a shield. Real brave guy. I have a cover on him and I'm yelling, "Let me see your hands." At the same time, my partner goes over, grabs the secretary and takes her out to safety. Then two other guys came in and we took him into custody. Prior to the door being blown, I was scared to death.

Q: For her safety? For your safety?

A: For everybody's. Anybody who tells you they're not afraid in this business is a stupid idiot or they're not telling you the truth. If someone is not afraid in this business, he doesn't belong in the unit.

Q: Well, your stories are great. Do you have another one for me?

A: Yeah, kind of a humorous one. The search warrant was for an apartment that was right in a corner on the first floor. It was uncertain which windows were for which apartments in that corner, but everything was all figured out about which windows we would be going through.

This particular tactic called for breaking out the big picture window of that apartment, clearing the glass out quickly, and making an entry into that living room. We got there. We put everything into action. The front team made their entry into the living room. They broke out the big picture window. Glass went everywhere. They went in. They had a three- or four-man entry team. When they went in this very clean living room, sitting there watching an evangelical hour on TV was an elderly black lady, all by herself on the couch. She was somewhat startled obviously because her big picture window was broken in and these guys in SWAT gear with balaclavas on and weapons came rushing in, even knocking over one of her big plants by the window, so there was dirt in the carpet.

Her husband, also an elderly black man, was in the kitchen. He was getting something to drink, a glass of water or something. He sees all this commotion coming in through his window. Very, very calmly, as if this thing happened everyday, he pointed in the direction of the neighboring apartment and he said, very softly, almost in a whisper, "I think you want next door."

Rick Massa

"Well, you know, it's not the first time I've had to crawl into something without having a vest for protection."

Q: You joined the LAPD in 1971. Why did you become a police officer?

A: There were a number of reasons. One, for the excitement of it. And also for the chance to be able to help people and help the community in which you serve. It's not a million-dollar, money-making job by any means, but it definitely has the excitement.

Q: How old were you when you joined?

A: Twenty-one. As soon as I turned 21, I came on the job.

Q: When did you become a SWAT officer?

A: I became a SWAT officer in June of 1981. I went from a specialized unit, Hollywood Vice, into Metropolitan division. I was in Metro for two years. They had the openings in SWAT, and I thought that would be the next step for what I wanted to achieve.

Q: Which was?

A: Trying to become more involved in different types of police work. Also, it was another step as far as the excitement of police work. And it's definitely more related to teamwork than any other aspect of police work.

"You work with specific individuals."

Photos by Rod Fung

Q: How does being in SWAT differ from regular police work?

A: Without a doubt, the teamwork is much more intense. You work with specific individuals. Your training is much more intense. We train the way that we're going to handle a call-up or some type of a SWAT incident. It's very professional. There is no goofing around. There's no room for it. We train in many different types of areas too. It's not just a shooting type of thing. It's room-clearing, rappelling, a number of different things.

Photo by Rod Fung

"Without a doubt, the teamwork is much more intense."

Q: What have you specialized in?

A: I am one of our senior hostage negotiators and I also do entries. I'm just getting into being one of the breachers, handling explosives.

Q: I want to hit you up for some stories about that, but first can you describe a typical work day?

A: A typical work day for a SWAT officer can vary. We work a straight eight-hour shift. We have to call our office the night before to find out what we're doing for the following work day because it could change. If we have a foreign dignitary that comes into town, we might have to provide him with protection. If a high-threat warrant comes down from Narcotics that we're required to serve, that could come up at a moment's notice. For all intents and purposes, we get up, we go to work. We are afforded one hour of on-duty workout time, whether it be running, lifting weights, or some type of physical activity. Then we have a briefing for the day, and then we'll go to work. It'll be in a high-crime area. This we call "crime suppression." We have all of our SWAT equipment with us so if we do have some type of a barricade or hostage situation, we'll respond to it immediately, anywhere in the city.

Q: It's surprising to me that you don't know until the night before what you'll be doing the next day.

A: It makes it tough on a family life. There was a week not long ago where we had a different start time every day. Usually, our start time is 2 o'clock in the afternoon and we'll work until 10 o'clock at night. But there again, that can vary. If we have training, training could be 10 o'clock in the morning until eight hours later. Depending upon the type of training, if we're on the range, it's 10 to 6. If it's a night shoot, it could be 4 'til midnight. If we're doing room clearing, it could be 2 to 10, or 3 to 11. So it really varies. You have to be able to understand the situation that we're in. We don't have the luxury of saying "I work a 9-to-5 job." It kind of goes with the territory. It takes a lot of understanding on the wife or girlfriend's part to be able to handle that.

"We train the way we're going to handle a call-up."

Q: You mentioned learning about explosives? Who is training you in that?

A: Our Bomb Squad is doing the training. One of our SWAT officers left, promoted over to their unit, so he has the SWAT tactics background. The bomb squad is a separate part of Metropolitan division. They're part of the Scientific Investigation division. They handle everything to do with bombs as far as taking them apart, investigating them. If we have to make what we call a breach or an explosive entry, they will make the explosive device that we're going to use to do the breaching. Then they'll go ahead and show us how we attach the det cord to the charge and how we detonate the device.

Q: How often are explosives actually used in the field?

A: For training purposes only, we train maybe once a quarter, once every three months. Where we've actually breached in real-life situations, I can think of four instances that we've used some type of explosives to gain entry into a location.

Q: What do you blow up?

A: There's a number of ways of doing it. They can breach the door hinges using some type of explosive, whether it be C4, or linear shape. Linear shape, they can attach one charge to each of the hinges, tape them all together, then go behind some type of protective covering, around a corner or behind a bulletproof shield. They'll go ahead and detonate it. It'll blow the hinges off. The door will come off.

Q: Have you been on a call-up where they did that?

A: We were the first police department ever to use an explosive charge on an entry. It was in Pasadena. We were serving a warrant on a Black Guerrilla Family member that Narcotics was after. We used some linear shape on the doorknob and also on the door, not knowing at that time how much to use. Looking at the door from the pictures they had, they felt it was pretty well fortified. They used quite a bit of explosives. It not only blew a nice hole through the door, but there was a car sitting up on blocks in the adjacent driveway. It blew the car off the blocks. The concussion blew the windows out of the house next door. It blew the doorknob through a television on the inside of the house.

The only problem was that there was nobody there. We still served the warrant and looked for what the Narcotics people said to look for. When we do a warrant, we just make sure that the location is secure and it's safe for the Narcotics people or whomever obtained the warrant.

Once we went and did a warrant on a certain individual that Homicide felt was in a house. The person they were looking for was wanted for an execution style murder of another gang member. People had seen him go inside this residence. It's a flat-roofed, single story, typical residential house. We get there and call the family out. We talk to the family. The family says, "No, nobody else is inside." At the same time we've had people say, "Yes, we've seen him inside."

Q: What did you do then?

A: We call on the telephone and nobody answers. We order anybody inside out and nobody comes out. So we put tear gas into the house. Again, nobody comes out. We put more tear gas in and nobody comes out. The entry team makes entry. They clear the house and there is nobody in the house. They can't find anyone. But they do notice a crawl space that is an attic access. Even though it's a flat roof, it still has an attic space of about twelve to fourteen inches in depth.

Photo by Rod Fung

"So, being the smallest guy in the unit..."

So, being the smallest guy in the unit, they called me up from my position, which was a high-ground position with a sniper. I came down, put my gas mask on and went inside. They wanted me to go up in the crawl space and see if I could see anything or anybody. I started to go up and realized that the space was extremely small and that I would have to do it without my vest on. I took my bulletproof vest off, took my ballistic helmet off, and went up with my gas mask on and my hand gun. I got up in the attic space. It was extremely hard to move. I couldn't even move a flashlight on end, top to bottom, because it was that small an area.

And there wasn't anybody else to be back-up. They told me that. The team leader said, "You're the only one we're going to be able to put up there. Don't go too far in. See what you can see." I went about halfway in and sure enough, the suspect was up in the attic, hiding at the far end between two rafters.

Q: Did he have room to maneuver?

A: He obviously had enough time to get up into that position. He had picked that location because of the tear gas. He had moved all the way down to the end of the attic to where there was a screen leading outside to fresh air. He had positioned himself so that he was able to get fresh air. It didn't really matter how much tear gas we put in because he was still breathing fresh air through the roof screen.

Q: Who saw whom first?

A: I saw him first. I ordered him out, ordered to see his hands. He didn't respond. I ordered him again. He didn't respond. My team leader called me down and I came out. He still didn't come out. The way we resolved it, we went from the outside, pulled the attic screen off from the outside, and put a couple of hand-held tear gas canisters in through the vent right where he was. He came scrambling back out the attic access into the house.

Q: Weren't you worried he was armed?

A: Well, you know, it's not the first time I've had to crawl into something without having a vest for protection. Being the size that I am, I realize that's what I'm best suited for. In addition to that, I also believe that when it's a matter of your time to go, so to speak, it's your time to go. I put a bulletproof vest on when I go to work, and take those type of precautions. But at the same time, if I had to worry about every time I looked around a corner, I wouldn't be in the business I'm in.

Q: How tall are you?

A: I'm 5-feet-8-inches tall and 138 pounds.

Q: When did you first train to be a part of a Crisis Negotiation Team?

A: Now you're racking my memory. Some time ago. Thirteen, 14 years on the job...I've been a negotiator probably about 10 years. I find it very

intriguing. It's still being a part of SWAT and still being a part of tactics. It's almost like wearing two hats. One day I could be on tactics. The next day I might be a negotiator. As a negotiator, I find it extremely interesting because it's a one-on-one situation. But you're still part of a team.

You're either a primary negotiator or a secondary negotiator. There's a hostage negotiation supervisor and one of our department psychologists in addition to one of our department investigators. So you are part of a team while talking to this individual. When I say a one-on-one situation, I mean it's that negotiation team talking to this individual, convincing him to give himself up and to come out.

Q: How about relating an incident in which you were on the CNT?

A: Well, let's see, I was the secondary negotiator on the Rainbow Man at the Hyatt. Also on the County General Hospital incident.

Q: What was the Rainbow Man at the Hyatt?

A: The Rainbow Man was just kind of a nut, for lack of a better term. He would be seen at different sporting events wearing a rainbow wig. He would be professing different verses of religion, trying to convince people that the end of the world was only a couple days away. In trying to get his message across, he went into the LAX airport Hyatt and proceeded to take one of the maids hostage. He decided to hold her hostage to get his point across to the world that the end was imminent. So we negotiated with him. It resulted in everybody being rescued but we had to go to tactics on that. It was a hopeless situation as far as reaching a safe end through negotiations.

Q: How can you tell when you've reached that point with a suspect?

A: You get a feel for it. After a while of talking to somebody, you get a feel for the way they're talking to you, the manner, in the things that they're saying, in the confidence that you're able to gain from them and also the confidence that you're able to give to them. It's a give-and-take situation when you're talking and negotiating. One of the things that we try to gain from them is their confidence in us. Your ultimate goal is that it is a working relationship where you can get him to give up any hostages that he might have and to get his safe surrender.

He had told us he did not want to hurt her. He did not go to that location with the intent of hurting anyone. He just wanted to let people know. But at the same time, he's making threats that he picked the Hyatt because it was the last hotel in the chain of hotels in line with the final landing pattern of the incoming jets. Looking at it on a map, if he wanted to, he could actually shoot at the jets or shoot at the control tower.

So he's still making threats in that manner and at the same time he's telling us he doesn't want to hurt anybody. There's an inconsistency in what he's telling us. It's almost as if you're on a roller coaster ride where you're starting to make progress. He'll say, "Yes," as if we're getting someplace with him, and then all of a sudden you're on the downhill side of that roller coaster where he says, "I'm not coming out. I don't care what you guys do. I watch you guys all the time. I know that you're going to try to storm this place." It's an up-and-down situation, a paranoia, where he's very much afraid of you. At the same time, he'll start to talk to you about different things.

Q: So as you said earlier, you had no choice but to eventually go to tactics. What was the other incident you mentioned? The County General Hospital?

A: Yes, that incident started when a guy walked in very upset because during the prior week, he'd come in for treatment and the doctors made him wait. He got tired of having to wait. He walked in the emergency room one day, pulled a gun out, and shot two or three of the doctors. Then he ran into one of the back areas of the patient examination rooms, grabbed a nurse, and was holding the nurse hostage.

The police got there, SWAT got there, negotiators were selected, and we established communications with him. In negotiating with him, as odd as it might sound, he was rational as far as talking, talking just the way we are now, but he had a timeline for us. We asked him what his name was, and he made the comment, "I'll let you know at 3 o'clock what my name is." And we didn't want to push that. We don't want to back someone into a corner. We would ask him what brought this about, carry on a conversation and develop a rapport with whoever is inside.

When 3 o'clock came around, we made a comment to him. "Well, it's 3 o'clock. Will you tell us your name now?" And he said, "Yes, my name is so-and-so." And we'd say, "How is the nurse doing? Will you tell us her name?" "I'll let you know what her name is at 4 o'clock."

Q: Was this so he could maintain control of the situation?

A: Exactly. It gave him a sense that he had control of the situation, which he did. But also he wanted to make us wait. And he told us this because we had asked, "Why do we have to wait until that time?" He said, "I want to make you wait. I want you to know what it's like to wait."

As long as he was holding to that and the nurse wasn't in any immediate threat, in the sense that he wasn't trying to shoot her or strangle her or beat her, we were abiding by that timeline. We feel that as long as we have a good rapport and good negotiations going, then time is on our side. We'll negotiate until we feel that negotiations are going no place.

Q: And the longer the hostage and the suspect are in contact with each other, the more of a chance there is for a bond to form and less of a chance that the suspect will harm the hostage.

A: True. For us to be able to resolve the situation, if there is no immediate crisis where we have to implement some type of an emergency rescue, then time is on our side. It's hard for the hostage to understand that. It's hard for them to just sit there and wait.

In this case, time came around, he told us the hostage's name, we talked to him. "How about releasing her? She doesn't afford you any safety. She's not really doing much for you. How about releasing her and then we can talk about you coming out safely?" And he agreed that at a certain time, he would release her. And at a certain time, he did release her.

Later on down the road that evening, he wound up coming out, and he came out when he said he would. Negotiations help tactics [in that we know how to] orchestrate what's going to happen. We tell him, "OK, we want you to come

out this door. We want you to come out with your hands up. When you come out, turn around. If you have a jacket on, leave the jacket inside. Don't have anything bulky under your shirt. Make sure your shirt's tucked in so we can make sure there's nothing in your waist. Do whatever the officer outside tells you. Listen to his voice and his instructions."

Q: That sounds like a textbook case of good crisis negotiation.

A: It worked out real well for us.

"We're there to make sure nobody gets hurt."

Q: Have you ever had to fire your gun at a suspect?

A: I've been in SWAT for about 13, 14 years, and I've never fired my gun at anyone.

Q: Even as a sniper?

A: As a sniper, as a SWAT officer, as a policeman. I've been a policeman for almost 25 years. I've been shot at a number of times, a couple of times in SWAT situations, but I've never fired at anybody.

Q: Is there anything else you'd like to add?

A: In my opinion, a lot of people think that SWAT is a bunch of hired killers for the Police Department, a necessary evil. But in reality — and I don't know what the stats are but I wish I did — in reality we actually save people many more times than we kill people. Our job is not to go out and kill people. We go out and make every effort to save not only hostages but also the suspect or the person that's barricaded. That's what we're there for. We're there to make sure that nobody gets hurt, whether it be the police officer or the person inside.

Photo by Rod Fung

"You've got to provide brotherhood and security for each other while you're working out there with the public."

Q: When did you join the police force?

A: February of 1971.

Q: Why did you become a police officer?

A: I was en route to work and I had an accident with a recruiting officer for the LAPD. I told him to get the estimates on his vehicle. He came back the next day and I paid him in cash for the damages. Well, he was impressed that I was 17 years old and so responsible. He asked me what my intentions were for a career. I told him I was going to be a carpenter. He asked me if I'd thought about being a police officer. I told him, "No."

He introduced me to what was called the Student Work Program. He said, "Give it some thought. We'll pay for your education, give you a job in the Police Department so you get to know the Police Department, and then when you're of age, you go into the Academy." So lacking funds, I figured I'd take advantage of it just for the schooling, not knowing that I'd end up falling in love not only with the job, but with the people who work the job.

Q: And you fell in love with it without even experiencing the excitement of being out on the street?

A: Just from knowing what the prudence of being a police officer was before I actually got into the field itself, which is basically the highlight of police work. After all the training, you go amongst the people and single out which 90 percent of the public is good and find that 10 percent that causes the problems. And you've got to provide brotherhood and security for each other while you're working out there along with the public. It's a good challenge. I've been there 24 years and I still get up every morning looking forward to going to work.

Q: That's something you seem to have in common with all the SWAT officers I've talked to.

A: It's the camaraderie, this tight-knit group of guys that understand the problems that we go through. It's not such a tight-knit group that we miss each other due to promotions, injuries, and retirements because we pull in new people. We know that to be proficient and efficient so we

don't lose anybody, we must train. That training pulls us together because we train as one man, one unit. Every man knows what the other man's going to do.

Q: How close have you come to having a female officer in SWAT?

A: There's still a problem getting enough females to apply or to stay on because of the demands of the job. I think there's only 18 percent females on the force, and they're aiming for 40 or 44 percent. They just released the figures. I think it's 16 percent black, 18 percent females, 50 percent white, 3 percent Asian, and the balance Hispanic. So they're trying to recruit more blacks and more females.

We've had a couple women attempt it, but because of whatever, they just didn't make it. There was one who was physically dynamic. She had every quality to make it physically, but she suffered in some other aspects of certification. We'll have 100 applicants put in for SWAT and there's 10 positions open, so they first break it down to the best 20. Those best 20 go for the jobs. Those 20 are so damn good, you no longer look to see who's the best, you look to see who has a weak spot. In the testing process, they're evaluated in what every officer should know as far as their shooting, their team movement, stuff like that. Because that's what our whole concept is: Team.

If we get an officer who just can't work in the team mode, he's a lone wolf but he's a damn good policeman, then he belongs in Narcotics, not in our unit. Narcotics, Bunco, Forgery, they're one-man units. They get out there and work on their own to develop the case, bring it back to the office, work up the case load, then they go serve a warrant. But to be as successful as we are, we go as a team. If we get one guy that's not covering his responsibility when he's told to cover, that's when he gets one of his teammates hurt.

So when you're brought into the unit, that is taken to the point of extreme. You have to follow orders and be a team member. That and the common sense, courage, and belief in your team that's behind you. Because you have to believe that your back's OK without having to check to see if there's people covering you. You have to say, "I have the courage and the ability and the knowledge that these guys are taking care of me; I'm taking care of them."

Q: Do you remember your first call-up?

A: No, I don't even remember the last one. They're all one big mish-mosh, mixed up in the melting pot.

Q: I'm sure at least one of them stood out as amazing.

A: Oh, they're all amazing. They have to be amazing if we're going to continue to be successful. There are so many of them. There's some guys who can really keep that stuff in their head and remember. I'm the kind of guy that as soon as I've got the problem solved — nobody got hurt, great; somebody got hurt, I gain knowledge from it to use in training so it doesn't happen again, and then dismiss it, just let it go. Because otherwise you drive yourself nuts running the thing through your head over and over again. Why it went wrong. Why did one of our guys get hurt? Why did you have to take the person's life? You train off it but don't dwell on it. So I let it go.

Q: What position are you?

A: I'm a rear guard. I'm the guy that protects the scout. Normally on warrant services or barricaded situations, the rear guard is the first man in. He controls the entry. Then the rest of the team

"I'm a rear guard. I'm the guy that protects the scout."

comes in, then the scout comes in. During a covert entry, the scout tries to find out where the suspect is hidden using certain devices, high intensity light or the mirror. The rear guard is straddling him, right on top in close proximity, preventing anybody from suddenly coming out. If they do and it's a threat, the rear guard engages. If not, then the rear guard's job is to neutralize, to settle the situation down, retrieve the suspect's weapon, and then take him into custody.

Q: Besides for being a rear guard, are you cross-trained in any specialties like explosives or rappelling?

A: Rappelling? We're all taught that. There's certain guys that are cadre members because of their ability and proficiency in that particular field.

"Rappelling? We're all taught that."

We have people assigned to crisis negotiations cadre. They train the rest of the negotiators along with the civilians, the doctors or people they'll pull in to calm the person down. The rappelling cadre, they're guys who are really good at climbing rocks, buildings, setting up ropes and tying them down. The shooting cadre, I'm a member of that. My forté is instruction on the Benelli and the Remington shotguns: familiarity with the weapon, manipulation of the weapon, loading and unloading, and the tactical movement of the weapon. We have to maintain a high proficiency to remain in the cadre, as well as making sure the rest of the unit maintains a very, very high proficiency, percentage-wise, with their shooting.

Q: How about if we switch gears now? I understand you guys play a lot of practical jokes on each other?

A: Oh, that we do. I'm personally not a prankster, but a lot of guys do. They'll pull practical jokes on each other, or tell jokes on each other, make fun of each other's wives.

Q: Does anything funny ever happen on the call-ups?

A: We had one where we were serving a dynamic warrant on a house that had an identical house

right next door. A brand-new SWAT pup had the responsibility of taking out the windows, a rake-and-break diversion so we could cover the location before the entry team went in. This one officer deployed off of his vehicle and ran up to the house. When he looked around, he didn't see anybody else around the house, so he figured the other 30-some guys went to the wrong place. So he thought that he would do his job, and because all the others were gone, he'd do their job too. So he broke every window of the wrong house!

Another time we were en route to a warrant. The leading officer wore glasses. He had taken his glasses off for his partner to clean while we were driving up to the location. Well, we were supposed to go onto San Pedro. We pulled up on Avalon. San Pedro and Avalon look identical at their intersections with 103rd Street. The team leader had drawn up the warrant and he decided this was San Pedro, not knowing it was Avalon because he didn't have his glasses on. He negotiated a left-hand turn. The whole unit made the turn too. When he came to a stop, everyone was to disembark and run to the house. Well, they started to disembark and as soon as everybody came out, they realized they were on the wrong street. He put his glasses back on and says, "Well, test run, guys. Just a test run. Just wanted to see if you guys knew what was happening here. OK, get back in." After that we called him "Mr. Magoo."

Q: Do you socialize with SWAT people?

A: Usually when I get off work, I leave that behind me. I found out when I was a younger policeman that if you maintain a full-life profile involving work alone, you end up losing the whole concept. You get an "us against them" mentality, that if you're not a policeman, you're not good folk.

Q: You have to be blue or you're nothing?

A: Right, that's what you don't want. So if you stick with just the police department, socialize with just policemen, go out with guys who are just policemen, you find out that you develop that mentality. That's not right. That's not good. You're still part of the community.

But I am involved in the police department's charity tackle football team. We play other police and fire departments throughout the country. We get some pretty good crowds, 40 to 50 thousand, at the Coliseum, the East LA stadium, or major colleges. We travel to New York, Miami, all over. The money we collect goes to the DARE program, the Blind Children's Center in Hollywood. We get to meet policemen in other cities. They get to know us, know that we're not the so-called "finest." We're no better than them, no less than them — we're equal.

Q: Do you guys usually win?

A: Yeah, we've got a pretty good team.

Q: I ask this next question because I think the readers will be amazed that so many officers are in the police force for 20 years or more without once using their weapon. Have you ever fired your weapon at a suspect?

A: Both in SWAT and in patrol. I'm one of the unfortunate ones who's been involved in a number of firefights.

Q: Do you mind talking about it?

A: Yeah, I do. I don't care to talk about it. I have been in a number of them so I just.... Again, one of those things I just put out of my head.

Q: Just the luck of the draw, huh?

A: Just the luck of the draw. I'm a little quicker, a better shooter, that's all.

Bob Bennyworth

"If you're taken hostage and you can show the suspect that you're human, this makes it harder for the suspect to kill you."

Q: What is your position in the element?

A: I'm the team leader of a five-man team within a SWAT squad. There are two elements in a squad, each consisting of five people.

Q: When did you join the police force?

A: August 1, 1966. I was 21 years old.

Q: Why did you become a police officer?

A: Well, I started out wanting to be a policeman because I thought it was an exciting profession, and at the time I was loading trucks, which was not exciting. I had a friend who gave me some information about LAPD and I applied for it and was accepted.

Q: When and why did you become a SWAT officer?

A: I went to Metropolitan division in '69, had three years on the job, then in '73 went into SWAT. I went to SWAT because I thought it was a very sought-after position that was relatively new under the roof of Metro.

Q: You've seen a lot of changes in SWAT over the years, changes in tactics, equipment, support.

A: Yes, I have. Everything has progressed because of new, inventive ideas by our people that have been adopted by other departments. Tactics have changed. Something like the SLA shoot-out was a big fire fight compared to what today would be a one-shot concept. There would be more negotiation than actual shooting involved.

"I'm cross-trained in all the weapons we use except for the sniper rifle."

Photos by Rod Fung

Q: How often do the crisis situations, the call-ups, occur?

A: It varies. In one month we've had as many as nine, 10 call-ups, sometimes as many as three in one day. And then we may go a month and not ever get called up.

Q: Are you cross-trained in any specialized equipment or tactics?

A: I'm cross-trained in all the weapons we use except for the sniper rifle. I have gone to school with the sniper team so I know how they function and what their jobs are. If, as a team leader, I have to put them in a place affording a good cover and where they also have to take a shot, then I have to know what their capabilities are. So I know that, although I'm not an expert with the sniper rifle.

Photo by Rod Fung

"Tactics have changed. There would be more negotiation than actual shooting involved."

Q: Besides explosives, how else does SWAT gain entry into a house? I saw a photo where something that looked like a firehose was attached to the outside of a door. Then a vehicle pulls out and the door just popped right off, but I couldn't tell how the firehose was attached to the door.

A: Actually, those are hooks that are attached to a rappelling rope, which is a very strong rope. Then it's attached to the Suburban; they're actually Suburbans we use because of the four-wheel drive. Because the location is heavily fortified with bars on the front doors and also the windows, sometimes we have to rip them off to be able to get in. We use a cover man on that person who's going to be doing the hook-up, and then one of our people who works in the armory, also a SWAT member, would drive that vehicle. We can do a backward pull or a forward pull depending on what direction we had to come into the location.

"Those are hooks that are attached to a rappelling rope...."

"Because the location is heavily fortified with bars...sometimes we have to rip them off."

Q: Have you ever had to fire a gun at a suspect?

A: Luckily, I've only had to fire my weapon twice in 29 years in the Police Department. Once I had probably less than six months in the field as a brand new police officer. I fired at a fleeing felon and missed him. The second time was the Symbionese Liberation Army shoot-out. I was part of the containment in the back. That was a two-hour firefight. I probably fired in excess of 1,500 rounds.

Q: And so did everybody else.

A: Yes. That was in the old days when we didn't have the one-shot concept. The situation was that we were sweeping that area for the Symbionese Liberation Army in conjunction with the FBI. They had located a possible hide-out. That is, they knew the general area because a van was found by two of our guys in SWAT who were working a crack suppression mode. It was decided at that point that they would turn it over to LAPD SWAT to do a sweep of two blocks going house to house.

Q: Looking for Patty Hearst?

A: Looking for Patty Hearst and the SLA. That plan probably would have been disastrous if we had found the right house, gone up, and knocked on the front door. Obviously there would have been a lot of injuries on our part. Luck had it that a woman whose daughter lived in this particular house on 54th Street had visited her daughter and saw Caucasian people in a black neighborhood. These people who were in the house had bandoliers of ammunition across their chests, combat boots, bloused combat pants, and looked like a military organization.

The woman got suspicious about it because her daughter wouldn't tell her who they were. She went to the police. Just before we jumped off for this major sweep of all these homes, we got the word and we targeted that particular house. At that point we surrounded the house and attempted to bullhorn them out. After about nine attempts with the bullhorn, we shot gas. As soon as we shot gas, where I was at in the rear received a real heavy volume of fire. This made us all get a little bit lower, duck back and get a little bit better cover. Then the word was given to open fire. Then we started shooting at this house.

Fifteen minutes into the firefight, we were out of ammunition. We carried enough on our person to have maybe three magazines. Most firefights last maybe seven seconds, but this continued on. So we had to send somebody back to the station

and get a truck with ammunition to bring out to us. Some of our people were pinned down where we couldn't get ammunition to them. They laid there for two hours being shot at without being able to fire back. Most of us got more ammo, reloaded, and began the firefight again.

At one point a woman started exiting. We heard the command to cease fire. Everybody stopped shooting and she came out. There was also one other time that someone who was not part of the SLA came out the front door. She was the daughter who had rented the house and then rented rooms out to the SLA without realizing who exactly they were.

Q: Although the bandoliers were pretty much a dead giveaway.

A: I think they had a lot of money to offer her and she accepted it. It's a poor neighborhood, so here comes somebody with a lot of money... "Sure, you can stay here."

Anyway, toward the end of the firefight, the house started burning, and we called for the fire department. They wouldn't come up because there was still somebody shooting from the house. I believe it was Camellia Hall and Nancy Perry. Camellia Hall had somehow gotten into the subfloor of the house and was shooting out the back. Nancy Perry attempted to crawl out, to crawl away from the firefight. I was inside, I didn't actually see what happened, but from what I hear, she was shooting at the officers and they ended up shooting and killing her.

Camellia Hall was laying down cover fire from under the house, and she was shot and killed at that location. And then the house burned down and rounds started cooking off inside because of the heat. When it was all over, there were no citizens or police officers injured. So it was pretty amazing that with all the rounds they expended, plus what we expended, the only people who perished were the suspects.

Q: And they called that one themselves.

A: Yeah. There are different levels of terrorism. They were at the top level, a terrorist who is willing to die for the cause. And that's what's sometimes a little bit scary about dealing with different types of people.

Q: Fortunately, major firefights like the SLA shoot-out don't happen anymore. Can you tell me about a more recent call-up?

A: There was a Vietnamese man that was estranged from his wife. He came back to their apartment, which was on the second floor of a building out in the Valley. He had a .357 Magnum and I think he had another weapon, a .25 auto, and he went into the house where he had a 3-year-old child. He threatened the wife because I guess he wanted to get the child back. The husband had shot at her and then shot at the sister and was threatening the life of the child. He was on drugs and alcohol. A psychologist told us he was turning sour and that he was in fact getting ready to kill the child and commit suicide.

Q: What did you do?

A: I led the entry on that case.

Q: Wow! Did you get medals?

A: Yeah. Three of us got the Medal of Valor. Other than that, everything is sort of like every day at the office.

Q: Not at my office! I know in negotiations, SWAT often has to deal with Stockholm Syndrome. What is that?

A: Because of the fear hostages have for their lives, they begin to believe in what the suspect believes. They start feeling for him. He starts talking to them, telling them all his problems, and because they have this survival instinct, they start

agreeing with him. "Yeah, I can understand why you did this. I can see why this is going on, what happened to you."

Pretty soon this bond starts forming between the hostage and the suspect. Now all of a sudden they're friends, they're buddies. If you get on the phone with a victim that's got the Stockholm Syndrome, they could very well tell the suspect exactly what you're telling them. You're telling them that there's a certain time you're going to do something, so don't tell the suspect — they'll turn around and tell the suspect exactly what you said, so you've got to be very cautious with what you're saying to these victims.

Q: I've read that the term "Stockholm Syndrome" originated in the 1970s. An attempted bank robbery failed. The gunmen took several hostages and held them captive in the bank vault for more than 70 hours. Can you tell me what happened to form a bond between the gunmen and the hostages?

A: Actually, one of the hostages had sexual relations with a gunman in the vault. I believe that hostage was married at the time and was still married after the situation. There was another young female hostage involved; she ended up marrying the suspect. The one that had the sexual relations with the suspect ended up taking her husband and family to visit him in jail.

There was an elderly woman in there that had a little bit more control of her emotions and seemed to be all right. And there was a middle-aged man in there who also wasn't effected by the Stockholm Syndrome, but the young, more naive girls became very involved with the Stockholm Syndrome. The investigators discovered what happened when they found semen on the floor in the bank vault, so they talked to the girls, who copped to what happened.

Q: Makes a great story to tell the kids. You know, how Mom and Dad met....

A: Yeah. "Your dad was a bank robber." But that's something we really have to be cautious of when we're dealing with people. There was a case in New York where a policeman was taken hostage. At one point they had a sniper team up and they told the police officer, "Get the suspect near the window. We're going to take him out." The policeman turned to the suspect and said, "Don't go near the window. They've got a sniper up." So he was affected by the Stockholm Syndrome.

Q: Doesn't the Crisis Negotiation Team want to build a bond between the suspect and the hostage?

A: Exactly. If you're taken hostage and you can show the suspect that you're human, it makes it harder for the suspect to kill you. General Dozier was taken hostage over in Europe, I believe it was Italy, by a terrorist group. The guy that took him hostage, this terrorist, had done this about eight times, so he was a pretty hardened criminal. Most of the time that he took hostages, he killed the victim because the demands were not met.

At certain times when they were feeding the general, he began to talk to the suspect. The suspect began seeing him as a poor old man and started relating to him as a grandfather type. I think it was an anti-terrorist group of police officers that finally took him down. They found out where he was and rushed the house. The suspect was there with a gun in his hand ready to shoot Dozier, but he didn't do it because he had reverse Stockholm Syndrome. Dozier knew this, he knew about the Stockholm Syndrome, so he tried to portray himself as just a poor old man to this guy. One other thing. If they take you hostage and they put a hood on your head....

Q: Not good?

A: Not good because they don't want to relate to you. You are just a piece of meat, you are nothing.

Q: Switching gears now, being a SWAT officer is serious work. Do you ever use humor to relieve the pressure?

A: Well, we deal in black humor as police officers because of all the negative things that we see. Some people think that we're really cold and cruel, but it's basically a defense mechanism to deal with things that we see, so a lot of our humor is about things that most people probably wouldn't appreciate.

We like to play practical jokes on the supervisors. They have certain stalls in the parking garage designated for the captain. We'll use those parking stalls when we know the captain has gone home for the day or those lieutenants who have designated stalls are gone. So the sergeants will park their cars there. What we'll do is take a long rope and we'll tie it to the front of the bumper and we'll tie the other end to a trash can. Then when he gets in his car and backs up and starts to drive away, this rope will tighten up and pretty soon he's driving a trash can behind him.

Or we'll take their hubcaps off. We'll take some rocks, throw them in the hubcaps, and put them back on. We don't really play mean jokes, it's more or less funny jokes. A lot of times guys will go hide behind the cars and wait to see what the reaction is going to be. It's got to a point now where we have to find something else to do because now they go around checking their cars every time they get into them before they leave.

Q: What do the SWAT officers think about Chief Gates?

A: We all have the utmost respect for him. He's always stood behind us. He has streamlined the chain of command for the SWAT team. In the old days, it was very difficult to be given an assignment because a lot of division captains didn't really know what we were. A lot of captains in the department thought we were beady-eyed gun nuts that had all these funny tactics. They didn't realize what our job was.

Q: It's very surprising that other police officers would have this misguided view.

A: Yeah. I think that viewpoint changed after the SLA shoot-out. Daryl Gates was the one that really pushed it over, what we do and what we are. It's been a long road just gathering successes to prove what we do. Even today, I believe there may be a few captains who are afraid to have us roll on their calls if they have a situation where they should be using SWAT. That's a sad state of affairs because of our success as a life-saving organization. If we can get somebody out alive, and I don't care what he's done, if he's murdered somebody or whatever, we still try to get this person out. The only time we have to use deadly force is when a life is at stake. Our job is to be the life-saving entity of the department.

"Our job is to be the lifesaving entity of the department."

Steve Stear

"I filled a straw full of baking soda and I stuck it down the air vents of his car. So as soon as he cranked it over, the whole inside of the car went white. Thank God the captain had a sense of humor."

Q: Are you enjoying your position as technical advisor for Police Quest?

A: Oh yeah. It's too easy. I like the way Tammy tries to stick with our tactics, she doesn't try to get too ridiculous or go overboard. She's pretty much right on line. It's nice to work with someone who appreciates where you're coming from on things.

"I like the way Tammy tries to stick with our tactics, she doesn't try to get too ridiculous or go overboard."

Photos by Rod Fung

Q: When did you join the police force?

A: September '69.

Q: And what made you become a cop?

A: A couple of things. I knew a gentleman who was a reserve officer and he mentioned something about my becoming a police officer. My best friend in high school and I were both looking for something we wanted to get into, go to college for, something we were interested in. That was during the Vietnam War. We wanted to go to college so we'd stay out of the draft and get into a career we both liked. We both decided to become police officers.

Q: When did you become a SWAT officer?

A: I came to SWAT in January of '78.

Q: Has SWAT lived up to your expectations?

A: Oh yeah. Even more so. When I first went into SWAT, the training was...well, I shouldn't say intense because back then it was even more intense because we only trained once a month,

and now we train five times that much. But the training was taken very, very serious back then. It still is, but there wasn't anywhere near the levity that there is now. The personalities in the unit are different now, compared to the way it was.

Q: I've heard a lot about the practical jokes you all play on each other.

A: It really gets going sometimes.

Q: Are you involved in that? It sounds like you are.

A: Oh, once in a while. I'm the butt-end of a lot of jokes. What goes around, comes around. You've always got to pay somebody back when they pull something on you.

Q: Well, let's see. I've heard about tying trash cans to car bumpers, shaving cream under the door handles, dead fish in the back seat, smoke bombs... Have you improved on any of these?

A: Well, I've done all of them!

Q: Any that you're particularly proud of?

A: I'm not sure I want to cop to this one because I don't know who'll hear about it, but back in '84 when we were training for the Olympics, Larry and I got into Ron McCarthy's car. Ron McCarthy was a senior sergeant in our unit. I filled a straw full of baking soda and I stuck it down the air vents of his car. I blew it down into all of the vents. Then we cleaned it up real nice, turned the air conditioner on high, aimed all the vents so that they'd hit everybody right in the chest, and then locked the car back up.

Of course we didn't know who was going to get in the car with him. When McCarthy got in the car, the Captain got in the car, our lieutenant got in the car, and another sergeant got in the car. And we're all going, "Oh, Jesus!" So as soon as he cranked it over, the whole inside of the car went white. Thank God the captain had a sense of humor. The lieutenant was a little tight-jawed about it.

Q: You do crime suppression when you're not busy playing practical jokes and telling stories, right?

A: Yeah, sometimes we work. Probably one of the most fun arrests I ever had was when I was working with a partner named Bill who had a real knack for picking up stolen cars. He could spot rental cars and tell immediately whether the driver was the righteous renter of the car or if he had stolen the car from a car rental agency. We're driving down Pico and see a car with three suspects in it. As soon as they drove by us, Bill says, "That car is stolen."

Bill was driving, so I picked up the radio and I ran the plate on it. It came up Code 6 Charles, which means armed and dangerous. It was a stolen car taken in a robbery, and the suspects were supposed to be armed. It gave a description of the suspects, and all three suspects matched the description. These guys take one look at us and decide to boogie.

They head south on Western and Bill was right on them. This was during the summer at about 1 in the afternoon, so traffic was a little thick. It was a real short pursuit, but there were a couple of times it got a little exciting. One time I thought the suspect's car was going to wipe out this woman that was walking across the street with her baby carriage. He pulled into a residential area. At the next corner, we were going downhill through an intersection with a stop sign. Bill made a move between two cars, and I swear to God I don't know how we made it through because it was like our car shrunk.

As we came up to Olympic Blvd., the suspects hit the tail end of a school bus that was passing by, westbound. They spun out so we bailed out of

our car. I jumped up over the suspects' hood and chased the driver westbound. Bill took one guy into custody in the car with a gun. I chased this guy for a couple blocks, chased him into a Korean shopping center. The suspect I'm chasing is a Jamaican; he's black. He ran right up to the building and then ran in back to a staircase. I lost sight of him. I had my gun drawn. I slowly came around the other side of the staircase and I lost him. I couldn't find him. The only guy standing there was a Korean in a suit. Most Koreans around there don't speak English very well. The man could see I'm puzzled as to where this guy went. He looks right at me and says, "Officer, he went in right there."

He spoke perfect English. That alone shocked me. He pointed into this restaurant and I went in there. The three Korean proprietors are all standing there looking at this black guy who's sitting at a table now, just sweating bullets. He's sitting there with his hands folded like I'm not going to realize he's the suspect I've been chasing.

Q: Like he's been there for hours.

A: Yeah. So I took him into custody and finally get back to where the car was wrecked. We had a third outstanding suspect, so we started to do a search up the block. Some elderly Japanese women came out and they were trying to speak to us. They pointed and told us they saw a black guy go down into the parking structure below their apartments and he hasn't come out yet. We went down into the parking structure and found the third guy hiding underneath a truck. So we managed to get all three suspects into custody. The kicker on that was that two of the suspects were being sought by detectives for a dope rip-off that they had done where they just walked up to the front door, knocked on the door, and when the guy answered, they shot him and killed him. They were suspected of pulling that murder, so that was kind of good to hear. But we never got a subpoena. We never even learned what happened with these three guys.

Q: No kidding? Does that happen a lot?

A: No, it doesn't. That's what surprised me. So I don't know if they used these guys to gain further information on something else or what they ended up doing with them, but that's the last I heard of it.

Q: What was your scariest call-up?

A: I've had a couple of call-ups where there was an officer-involved shooting, but one was probably a little bit hairier than the other one. We got a radio call-up, over in Southwestern. The suspect was a paranoid schizophrenic, and he had quit taking his medication. He was running around the house, yelling out something unintelligible like "Yahoo-roo" or something like that, some kind of African phrase. We couldn't figure out what he was saying. He was a pretty good size guy. He had his head shaved bald, and he was about 6-feet-2-inches and 220 pounds. A great big guy.

He had threatened a friend who was in the house with him, pointed a sawed-off shotgun at him and told him to get out of the house or he was going to kill him. So when we get there, he's got everything all barricaded up. He's got furniture pushed up against the front door. He's got the kitchen door nailed shut. He's got his 75-pound barbell wedged up against the kitchen door so we can't get in that way. It's a fairly small apartment, but he's just buzzing around in there like he's ricocheting off the walls.

We shot tear gas in what we thought were all of the rooms, and he's still buzzing around in there like crazy. The tear gas is having no effect on him at all. We had moved up and tried to ram the kitchen door to get a point of entry. Immediately he comes running into the kitchen. I had a sniper set up who said, "Well, here he comes." He could see him right through the dining room window. So when the sniper gave us warning, we backed off because the door just wasn't giving in like we thought it would with a couple of hits with a ram.

We found out later that he had it well-barricaded and nailed shut.

Anyway, we thought we had the place all gassed up real good, but he's got the sawed-off shotgun and he's still not surrendering. So I got to looking at all the windows and it dawned on me that this one particular window was to a bathroom that we had not gassed yet. I moved up to it and smashed out the window because we were going to put tear gas in there. He came running into the bathroom and I backed off. I looked back up in the window and he wasn't there, but I noticed a shower curtain across the bathtub. If we put gas in there, it could all be contained in the bathtub area and not disperse out the way we want it to. My next step was to reach in with a pole and rip down that shower curtain so that when we did shoot tear gas in there, it could spread out real good.

So anyhow, I had my partner Paul looking directly at the window. We didn't have much room, like about 10 feet from Paul to the back of the bathroom. Right in back of Paul, standing over Paul, is Reuben with a Benelli shotgun. I've got Bobby standing in back of those two. He can't shoot, but he's a veteran officer, now a team leader. I knew Bobby was someone I could really trust to be in position back there to watch things for these guys. They were to cover me as I went up to pull this curtain rod down in case he came in there with the shotgun and started shooting.

When I reached in with the pole and ripped the shower curtain down, the dummy was right there with the shotgun, and he's bringing it down, pointing it at me. So as soon as I ducked, Paul opened up with his MP because now Paul is immediately in this guy's line of fire and so is Reuben. They're face to face with the suspect, and he's pointing his gun at them. Paul fires, hits the guy between the eyes and in the forehead. This guy was so big it didn't drop him immediately. He was frozen in position. Then Reuben shot him and hit him in the chest. The guy started to go down.

The way we train is to do double taps, so Paul was doing a double tap to his head. As he started to go down, I think one round hit across the back of his head. Then the guy dropped down out of sight. So that was the closest I ever came to having somebody put a gun in my face. Because of the tactics we use, I had someone right there to cover me. Things worked properly. They did their job; they protected me. Although it was a confrontation that we didn't really want to come about, because of our tactics, we dealt with the suspect before he was able to shoot any of us.

Q: You had no idea he was going to be behind that shower curtain?

A: No, I didn't. He came into that bathroom a lot quicker than we expected. When you're in a shooting like that, everything goes to slow motion. As soon as I dropped, they fired. I remember thinking, "Jesus, guys! Have a little bit of trigger control." It seemed like time was stretched out, and though everything was moving really slowly, it seemed like they were firing a lot of rounds. In actuality, they weren't. Pat Martin just happened to be sitting there looking at his watch when they started shooting and he said the shooting lasted about two seconds. To me it seemed like it was like 10 seconds long. To us, 10 seconds is a long time.

Anyway, the suspect dropped right down out of view. Everything was kind of silent for a while. I looked at the guys and said, "Everybody OK over there?" They said, "Yeah." Our lieutenant came on the radio and he says, "Were those shots we just heard?" I said, "Roger that." Then I paused for a second because I knew he'd be going, "OK, OK, tell me what it is!" I said, "We've got a suspect down. Everybody outside is fine. Just stand by for a minute."

I stuck the mirror back up in the window and saw the suspect down, bleeding heavily. While I kept the mirror on him, I had another team move up and finally get the kitchen door open. They came in and realized he was dead. They picked up the weapon and moved it away from him. So that was the closest I ever came to being shot.

Q: How did the investigation go?

A: That lasted all night because the Officer-Involved Shooting Team comes out and they go through a whole process of: "Where was everybody at?" "Why did you have people here?" "What tactics were you using?"

One thing I appreciate about the Shooting Team is that they realize we're not going about things half-assed out there. We put a lot of thought into our tactics. They just listened to me and nodded and said "OK" when I explained my tactics as to why I had people where, and what brought about the shooting. They go over everything, they don't miss anything, which is good because I don't want any misunderstanding as to why this shooting came about, why we had to shoot. It took all night long. The call started around midnight and we finally got off at about 10 o'clock the next morning. But it was all cash overtime....

Q: And it was ruled an in-policy shooting, right?

A: Yeah.

Q: But it was a little more excitement than you probably like on a day-to-day basis. Have you ever had to fire your gun at a suspect?

A: No, not once in almost 26 years on the force.

Q: I'm under the impression that during the 28 years of SWAT history, you've never lost an officer or a hostage. Is that correct?

A: We've never lost an officer. We did lose one hostage. This was quite a few years ago, maybe 12 years ago. It was at a pretty good-sized supermarket. It was up in the manager's office, which was on the second level. The suspect killed the hostage and himself before we could get into position to do a rescue or even negotiate with him. I think the hostage was on the phone with one of our negotiators. He killed the hostage without any warning at all. He just shoots the hostage in the head and then he killed himself. I was in the unit at that time but I wasn't on that call-up. That really upset a lot of people who didn't read that this guy was going to go off the deep end without any warning at all.

Q: Can you tell me about a successful hostage rescue?

A: Yes, though I wasn't on this one. Bob Bennyworth was the element leader. I believe we delivered something to the suspect. He came to the front door with a weapon. The sniper had the green light to take this guy out because the negotiators had figured out that this guy's off the deep end and he's gonna kill the baby or himself or somebody else. He's not going to surrender. Right as the sniper fired, the suspect turned his head. The sniper missed his head and pierced his ear. It caught the entry team off guard because they were not expecting a shot. So they started to go.

Bennyworth was in control of the team and he wanted to verify whether that was our sniper or the suspect shooting or what. This happened real quick but when it was determined that our sniper had fired and missed, the entry team went. It was an instant decision that they had to make; you know, if we don't go in after him now, he may go right in and kill the baby. They ran in through the front door on this guy's tail and, from what I was told, he was running back

down the hallway to the bathroom, turning around and shooting at the entry team at almost point-blank range.

Somehow he misses them. None of the entry team got hit, but they were running straight at him, which I thought took a lot of nerve to do. All three of them got the Medal of Valor for that, which, as you're probably aware, is the highest medal for bravery you can achieve in our department. The suspect was in the bathroom. He's got the baby up in front of him. They can't see his head. He's telling them, "I shoot baby! I shoot baby!"

He's got the gun up to the baby's head. Reuben is on the right to one side of the doorway, Bennyworth is more or less in the middle, and Joe is on the left side of the door frame. Bob Bennyworth tells Joe, "You take the shot if you get it" because he's got an MP and Reuben has a shotgun. Things are real hectic there and more than one guy is trying to talk to the suspect, telling him to put the baby down. Another team leader came in and he's in the back saying, "Just one guy talk."

So Bennyworth moved off to the right. He starts talking to the guy, "Put the baby down." When he said that to him, the suspect turned in the direction of Bob's voice, which gave Joe about a one-inch opening to take the shot on the suspect. He fired one round, hit him in the corner of the eye, and dropped him immediately. He was killed instantly. I don't know who it was, but someone catches the baby just as it came up off the floor.

Q: It must take a lot of nerve to take a shot like that.

A: Yeah, you have to have a lot of confidence in what you're going to do. Plus there's a lot to think about. You're at a very close range. It's easy to talk this stuff when you're out on the range. Your front sight is raised about an inch and a half, so you have to take that into consideration when you're at such close range. So to have a clear enough mind to think about that, to take all of that into consideration when that instant comes, takes a lot of training. I really have to hand it to those guys. They did an outstanding job.

Q: Thanks for taking the time to talk with me. One last question: Is this a good job?

A: Oh yeah. My goal is to stay in SWAT until I retire. I don't want to leave SWAT and go work the desk or go work one of the other two platoons. There's nothing better than the job I've got. There's nothing better than the platoon I'm in. There's just nothing that comes close.

Chapter Five

The Making of Police Quest: SWAT

Photo by Rod Fung

All right everyone, listen up! I've just been briefed on our mission. We are to create an interactive computer game based on the LAPD SWAT unit. It's not going to be an easy job, or a pretty one. You'll have to work long hours, follow orders to the letter, and stay pretty damn quick on your toes. Your creativity, skills, and resourcefulness is what got you into this outfit in the first place. Now let's see what you can do with 'em. Remember, keep your head down, your eyes open, and your imagination working overtime. Now get going!

The team behind *Police Quest: SWAT* is every bit as professional and dedicated to their task as their counterparts in D Platoon. Selected from the best in the computer game industry, each man and woman knows his or her job thoroughly and does it well. They are all team players who put the game first and their egos last. Whether you are talking to the artists, the programmers, or the designer herself, the pronoun of choice is always "we," not "I." The game is the result of the combined efforts of a widely diverse, immensely talented group of people merging their unique abilities for this project.

Naturally, game design begins with the designer. She thinks about her goals for the game, what the players will do, and how they'll do it. She writes a design document outlining the main play objectives, game geography and interface, characters, story line, and puzzles. Then the team is assembled. It includes a production manager, artists, programmers, a musician, a quality assurance lead, and possibly a writer or other specialist deemed necessary to the project. They discuss the design's artistic and technological aspects, each person making suggestions to enhance or facilitate the designer's concept.

Then the real work begins. Artists produce sketches and storyboards, then start on the gargantuan task of creating the mountain of animated sequences that go into an interactive production. Programmers build a framework of code to support game play. Then they place the art within the game's architecture, tweaking it until the interaction between player and computer is seamless. The musician adds magic by weaving in melodies and sound effects to create

Photo by Rod Fung

Video studio crew and actors

atmosphere and emotion. The quality-assurance person plays the game endlessly, uncovering glitches and inconsistencies that otherwise might go undetected by the team.

In a game with live-action video, production is complicated by the videotaping process. The designer becomes the director as well, preparing a shooting script, casting actors, scheduling studio time and resources, shooting the video, and then supervising its processing, editing, and incorporation into the game. Going from concept to completion can take upward of two years and monopolize the talents of dozens of professionals. The best way to get a feel for the intricacies of computer game production is to talk to the people involved. In this section, you'll find interviews with members of the SWAT development team. Following the interviews are comments culled from interviews with the talented cast.

TAMMY DARGAN

DESIGNER, DIRECTOR, WRITER, AND PRODUCER

Photo by Rod Fung

"You think of SWAT officers, particularly the snipers, as being cold-blooded, steely-eyed killers, really mean and cold, but they're all gentlemen. They're so nice."

Q: How did you begin the design for *Police Quest: SWAT*?

A: Well, this game isn't written like a regular design in that there isn't a beginning, middle, and end of any particular story. There are three different scenarios within the game that have story lines based on what SWAT officers tactically can do. To do that, I had to learn all about tactics that I didn't know anything about.

Photo by Rod Fung

"First I had to learn about tactics..."

Then I had to write the game interfaces. A lot of the game is about interfacing and, if you're going to be a SWAT officer, how you deal with your weapons and all the different tactics you'll employ. First I had to learn about tactics and the LAPD, then put that into a format that could be made into a game.

Q: So you were really designing from scratch?

A: Yeah, and actually it was very difficult because in a standard Sierra adventure game, we have Ego. That's who the player plays. You can walk him around. But because of all the different tactics you can use in SWAT, I really couldn't have a character who could do all those things, particularly because it's photorealistic. We couldn't film our actor doing every possible thing in the world from every single camera angle.

The game runs in real time too, so if you enter a room and your element is doing something that you're supposed to be a part of, you can either participate like you're supposed to or you don't

have to. You can do other things. You can leave, you can shoot at them, you can do anything. There was no real way to address that, so we ended up doing a first-person perspective in the scenarios, and that had its own challenges.

Q: How did you go about designing something so different?

A: What I had to do was figure out what tactics to use. For one thing, the LAPD didn't want us to share *all* their tactics. From the ones that I could use, I had to figure out what type of a scenario would allow that to come through: a barricaded suspect, an armed suspect with a hostage.... Then there's all the different weapons that they have. So we had to put training into the game, and that's why we have the shooting arcades.

The Angeles Range

To design it, I had to be thinking about what five people would be doing at all times. Or rather, what four people, and the player as the fifth, would be doing. It was a lot of "if this, then that" or "if not this, then what?" Then there's the standard stuff. There's dialogue and all the other things you have to write for a regular adventure game. And I like humor. I tried to inject humorous parts into the game so that funny little things happen here and there.

Q: I noticed that when you go to the sniper range, the guy in the Ghillie suit is just sitting there like a big bush.

A: For people who don't know it's a Ghillie suit, they won't know what that is. Every once in a while he stands up and stretches, and then changes his veil around and gets back down. And then every once in a while he walks by in his Ghillie suit, in the foreground, so it's very funny. Particularly if you don't know about Ghillie suits, it'll be a crack-up.

"The guy in the Ghillie suit is just sitting there like a big bush."

Q: How did you get the idea to do a game about LAPD SWAT and how did you make the connections with SWAT that enabled you to do the game?

A: Sierra has a relationship with Daryl Gates, who's the retired LAPD Chief of Police. When I worked with the Chief last summer on *Police Quest 4*, before we really nailed anything down, I had asked him what aspect of the Police Department we should emphasize. He had said, "Oh, probably major crime, homicide. They're very elite. It's very interesting." So I built a who-dun-it based on that. When this game came up, they said, "We want you to do another *Police Quest* with

the Chief." So we sat down again and I said, "Well, who's the next elite group?" He said, "The most elite is D Platoon, which is SWAT."

"D Platoon is very serious about itself."

The Chief made the introductory calls for us. D Platoon is very serious about itself. At first they were skeptical of me and of Sierra because they didn't know us. But the Chief said, "No, they're on the up and up." We met them a few times. Everybody was asking questions without being real direct, trying to figure out if it was going to be a hand-eye coordination arcade sequence where you're a sworn officer who could kill people randomly, like guerrilla warfare. But I'd done my homework so I knew they believe they're a life-saving organization, so I really tried to emphasize that that's what the game would be about. Once they got to know us a little bit more, they trusted us and then everything got going.

Q: I heard you got involved in some of their training.

A: Oh, yeah. It was really fun. Sniping is a science. It's very difficult to learn and takes such intense practice. Rod Fung and I went to the Angeles Range when the snipers were out there. It's funny. You think of SWAT officers, particularly the snipers, as being cold-blooded, steely-eyed killers, really mean and cold, but they're all gentlemen. They're so nice. It's just the opposite of what you think. And they're all cute, really cute.

Anyway, one of the officers recognized Rod's total enthusiasm about sniping. They snipe with these beautiful rifles called Robar SR60s. They're just gorgeous pieces of machinery. He said, "Would you guys like to fire the sniper rifle?" I thought he was just being polite so I said, "Oh no, that's OK. Rod doesn't need to do it." And of course Rod's face fell.... The officer said, "Oh no, no, it's really fine."

They sat Rod down on the table and got him up on the rifle. Rod took three shots, I think at 50 yards, and his three shots made one hole smaller than a dime. He has the target framed. The SWAT guys were all stunned. They just dropped their jaws and stared at Rod, "How could you do that?" Then they put me on there. Not only did I miss my target, I missed my target holder! Part of the problem was that I don't have the arm length to squeeze the trigger pull evenly and cleanly.

Photo by Rod Fung

Tammy and Officer Andy Rhea at the Angeles Range

Q: After writing the design for *SWAT*, you had to cast it and then go into the studio. Can you describe that whole process?

A: Before I came to work at Sierra, I lived in San Francisco for about 10 years, working in the film community there. I'm very familiar with the casting and talent agencies, so I felt more comfortable going there to get my actors. I knew I would have to go back and do voice-over work, and I prefer San Francisco to Los Angeles just from an aesthetic standpoint. If I have to spend a week there, then I'd rather go out for the evening in San Francisco.

We didn't have time to go up to San Francisco to cast the actors. It was kind of a disappointment. But what I did was hire a casting agent and I said, "I can't come to the sessions, so what I need you to do is videotape the actors, and I need head shots. These are the other criteria: Have they ever handled weapons before? If not, are they afraid of weapons or are they willing to handle weapons because we'll have an armorer on the stage, and we'll be firing blanks."

Photo by Rod Fung

"Are they afraid of weapons or are they willing to handle weapons?"

I sent the agent character descriptions and sample lines. She held a casting session and videotaped it for us. I got the tape back and I went over it again and again because when you write dialogue, at least for me, I see the person. If I see me when I write the dialogue, it's all going to sound like me. I get these images in my mind, so seeing the tape was bizarre because suddenly somebody would talk, and he looked exactly like Pacmeyer! It was Pacmeyer! And then with other people, it was more like, "Oh my gosh, that person is saying Rhea's words but it isn't Rhea." So then you start saying stuff like, "Wouldn't it have been great if the casting director had asked *that* actor to read *that* character?"

So I started second-guessing as to who could be what. The only bad thing was that with that video camera, we didn't realize what color hair people had, I thought our main character, Ego, had brown hair. He showed up with gray hair! I almost fell down! I couldn't believe it.

Q: That's not the guy you used?

A: Yes, it is. He's 26 or 27 years old and he has almost totally gray hair. I was so shocked. He walked in and I didn't want to be rude, "You have gray hair!" So I said, "Um, so have you been in a play maybe? What's with the hair?" He said, "Oh no, I have gray hair." I said, "Well, in your head shot and the videotape, it doesn't look like you have gray hair." So we had a little surprise, but he wore a helmet for most of the shooting and when he didn't, we just slicked it back and the wet look made it look more brown. Anyway, I would not advise that anyone cast anything off videotape, but if you have to, it can be done.

Before the actors came, I had to do all of the scheduling in the studio, and I had never scheduled for blue screen before. I know how long it takes to shoot a scene when it's just a regular set, but I never had to figure out how long it would take to shoot on a blue screen. I was pretty good. We got a little behind, but there were catch-up days. With everything having to be blocked on a blue set with blue boxes, sometimes it took longer.

"I thought our main character, Ego, had brown hair."

I booked the actors based on what I thought it would take, three days or a week. We had some actors who were there for almost two months straight. It was interesting. At first it was so funny. They were all so shy and polite. By the end they were one rowdy group — a family.

"By the end they were one rowdy group — a family."

Q: You directed the shoot?

A: Yeah. I don't know how any designer who does a photorealistic game wouldn't want to direct their own words. At least for me, when I write, I try to think of what the room looks like. I'm a visually oriented person, so when I write a room description, I'm imagining the actor coming in from the right and putting his hand on his hip or scratching his head or whatever. I'm giving them business in my head as I'm writing. I know how I want the pacing of the words, the emphasis here or there, so when we had our actors come up, I was really glad I could direct them.

"I don't know how any designer who...wouldn't want to direct their own words."

We also had SWAT advisors on board. Sometimes they would want to make changes, and being the designer and the director, I was able to say, "Yeah, that works. That works with the design because the player has to do this, this, and this to survive this room. Your change makes it more authentic and it also works within the design." Or if they'd want to change something completely, I'd say, "Well, I'd have to rewrite this and I don't have four days to write this whole thing over."

It was a give-and-take thing. I think if you had to hire a director from outside, they might not know whether it would change the design or not. I went to film school, so I've directed both in school and outside of school when I was freelancing, so I had the experience.

Photos by Rod Fung

"I went to film school, so I've directed before."

Q: Do you have any funny stories about things that happened on the set?

A: The whole thing was funny. We had a comedian who is Sgt. Rooker in the game. His name is Steve Barkley and he was a nonstop gooberhead, telling jokes, just always on. He was hysterical. Then we had another actor who plays Danny Tello in the game. His name's Tom Cassel. He sang the whole time. He didn't say "Hello." He sang, *"Gooood Mooorning!"* He'd be singing away. He sang everything. He'd sing, *"I'd like some caaaandy bars!"* and he'd be singing the candy bar thing. He'd never shut up. It was hysterical.

We had another actor who was like the salt of the earth, Tom Dryden. In the game he's Tom Denton. Tom would make coffee and bring it out, "Tammy, ya wanna cup?" Phy was the mother on the set, Tom was the father.

One of our actors — Oh, this was crazy! He went to the post office in his SWAT attire. You know Oakhurst isn't that big. The person behind the counter said, "Hello, Officer." So he was laughing when he came back. I said, "Did you go out in your uniform?" He said, "Well, I just went to the post office." He was telling all the guys, yukking it up, "Yeah, they thought I was a SWAT officer!" And the SWAT advisor said, "You're just damn lucky there wasn't a robbery." Then all the guys got kind of serious, "Maybe we won't be doing *that* anymore."

"The whole thing was funny."

We got to shoot all the weapons, which was a lot of fun. The shotgun makes this huge flame and it looks really scary. I actually own the same Benelli shotgun that LAPD uses.

Q: You actually own it?

A: I bought it after I got involved in making the game because it's a very cool, high-tech piece of equipment. It has this pistol grip and everything. It's really cool. Anyway, I'm too afraid to shoot it because it's a 12-gauge shotgun and it's massive!

"It was fun on a daily basis."

Photos by Rod Fung

It's real heavy and if it didn't have the pistol grip, I actually couldn't lift it up. We had a Benelli on the set and we were shooting blank shotgun shells. It looks real awesome when you film it and it sounds incredible, but there's no kick. I really wanted to fire this thing. On the last night of the shoot, at about 2 o'clock in the morning, our armorer let me fire that thing off. It was like New Year's Eve. It was a lot of fun. No kick. So I thought, "Well, maybe I could shoot the real thing if I get the guts."

Q: It sounds like you had a really good experience, a lot of fun.

A: It was fun on a daily basis. It was a lot of long hours, a lot of hard work. The best part though? Honestly? The funnest thing is watching the animation now. All the tape that we shot has been digitized. I'm working with the programmers now, looking at rooms being programmed and saying, "OK, that goes here. This action happens here." So now I'm kind of redirecting and it's a blast because it looks so cool. It was fun in the studio, but it was hot and smoky and stressful, and so this is almost more fun because it's the same kind of thing only it's not as hard. Realizing it and seeing it is pretty cool.

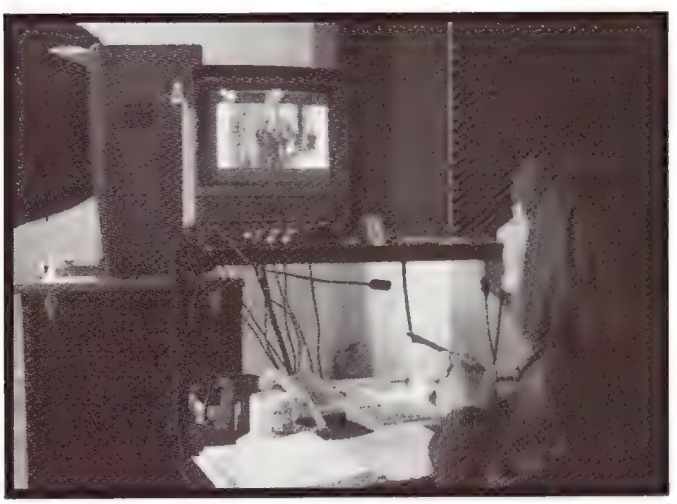


Photo by Rod Fung

"OK, that goes here. This action happens here."

Q: Is there going to be a *Police Quest 6*?

A: Well, the Chief wants *Police Quest 6*. I don't actually know what Sierra is having me design next. We've talked about a couple of different things, but nothing has been finalized. One of the things about *Police Quest: SWAT* is that since it's mission-based, I had the programmers build the ability in the engine to accept mission disks. So if the game sells well and people like it and want more, we can make add-ons. We have a real high shooting ratio of background pics, more than we ended up using, so I have other locations in digital form. I could actually start immediately writing add-on missions. I don't know if Sierra will say in August, "Gee, Tammy, our back orders are so large, let's go ahead and do our first mission disk" or they might say, "Let's go ahead and move on to something else."

I think the *Police Quest* series has been real successful for Sierra. When Jim Walls did the first three with Sonny Bonds, it had a flavor all its own. It was rotoscoped animation and it looked a certain way. I think that the technology change on *Police Quest 4* and *SWAT* has really taken it to new heights graphically. Doing the mission-based tactical thing this time is taking it in a new direction, as well. I think that says that *Police Quest* can be not just adventure games, but all sorts of different types of games in the future. I think it really does have future series potential.

Q: Do you think SWAT is going to be a good game?

A: I hope so. I think it's going to be a different game. I think there's going to be a lot of action to it. I hope so. If not, I'll be washing Ken Williams' cars on Saturdays for a job.

ROD FUNG

DIRECTOR OF ART AND PHOTOGRAPHY

"We were in the studio for a little over two months and we shot thousands of takes. It's just amazing."

Q: What is your background?

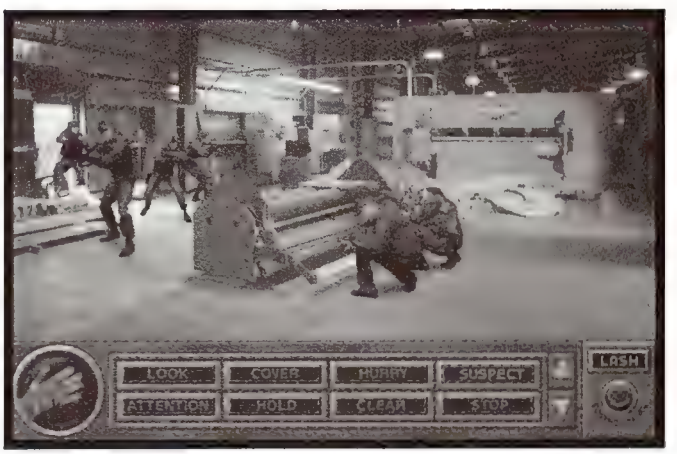
A: I never thought of myself as an artist. I was a cinematographer. In a way, that's an artist, but it's a technology-based artist. The people here have widely different backgrounds. I think that's really good. A lot of our artists come from art school. I think Tammy and I are the only ones at Sierra with a film school background.

Q: What are your responsibilities as art director?

A: The art director is responsible for the entire art side of the project, which includes designing a workable interface, all the animation, all the background pictures, and being in charge of the art staff. He or she has the final word in what is actually done and defines a style or look for the entire game.

Q: What look were you going for with *Police Quest: SWAT*?

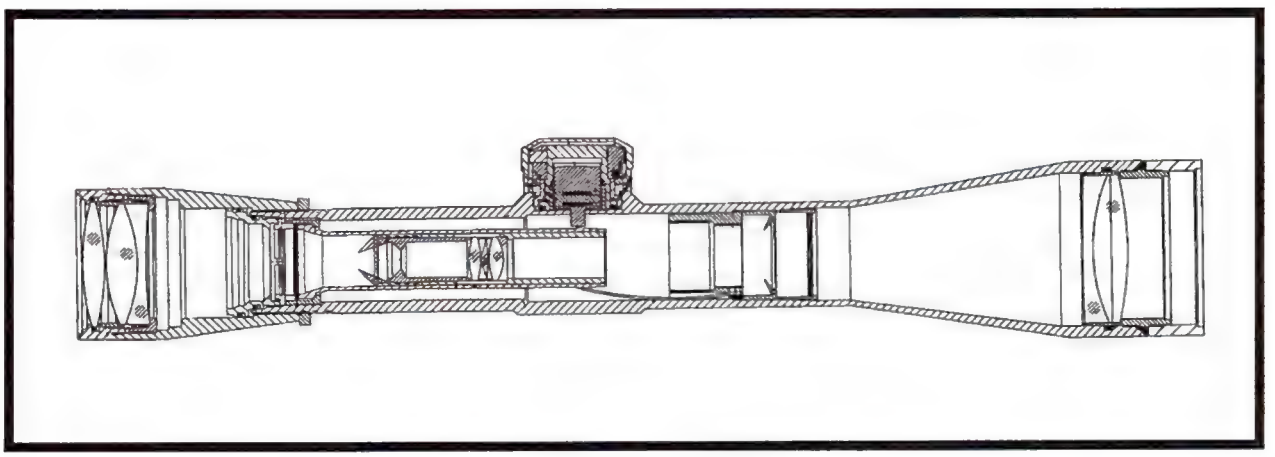
A: The look I was going for was very photorealistic,



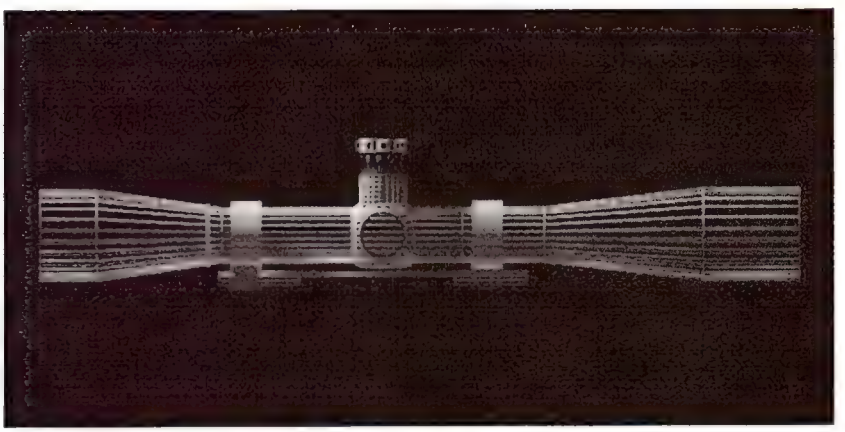
"We wanted to give it a realistic look but we also wanted to give it some style."

obviously, but it also has some type of style. We could have gone to Los Angeles and shot the actual places where some of these events happened. In many cases, the scenarios are designed or modeled after real events, but we went and found locations that are a little more interesting and challenging as well as being nice compositions. Those are the important things in terms

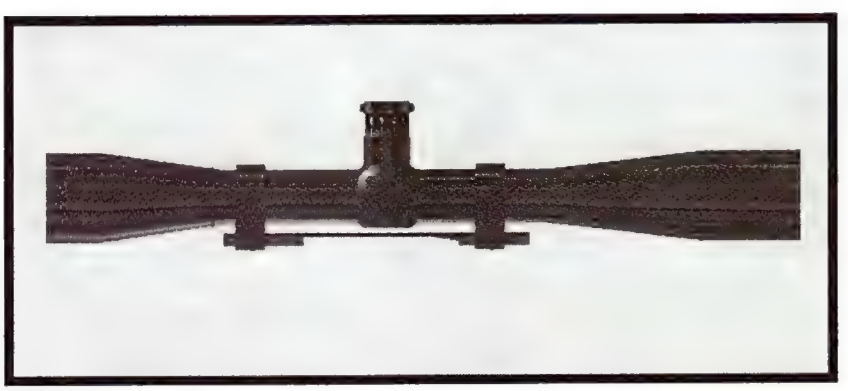
Riflescope Art



Original blueprint



Rendered 3D wireframe



Fully rendered 3D art

of developing a look. We wanted to give it a realistic look, but we also wanted to give it some style.

Q: By challenging, do you mean geographically challenging for the player, like the way the buildings or rooms are laid out?

A: Yeah. Not from the artistic but from the design standpoint.

Q: I've noticed how realistic things look. For example, the house isn't a crack house; it's just a typical house that a crazy lady lives in.

A: That's true. That's actually what happened in the real Lucy Long scenario. It's a real house modeled after an event that happened in a real house. Real people go real crazy in real houses.

Q: You used a digital camera to shoot the backgrounds. Can you explain what that is and how it works?

A: We did two types of photography for the backgrounds of *SWAT*. The first way was that I shot everything on 35mm transparency film. We scanned everything to Kodak Master Photo CDs to digitize them. Then I could bring the pictures into my computer and open them up in a huge, high-resolution digital format. We'd crop them, change doors, adjust the palette, do whatever was needed to do to make them working, interactive pictures for Tammy. This was the preferred method. I think 95 percent of all the backgrounds were handled this way. The other system that I used somewhat in *SWAT* is made by Kodak and Nikon. It's called the DCS 200. It shoots digital pictures. No film is involved at all, so it's kind of a nice system when I need something real fast. The digital camera was used more on *Police Quest 4*. The reason we used that

"We scanned everything to Kodak Master Photo CDs to digitize them."

technique at that time was that the technology wouldn't allow us to shoot 35mm and bring it into the computer at a price we could afford.

Q: So you just plug the DCS 200 right into the computer?

A: Yes, it's a special kind of camera that uses a SCSI port and ports directly into a PC or a Mac. You can open a fairly high-resolution picture, a 24-bit color picture, into PhotoShop. It's a very expensive camera. We used it on *PQ4*, so it's about two years old now. For certain things, it's still very handy, though.

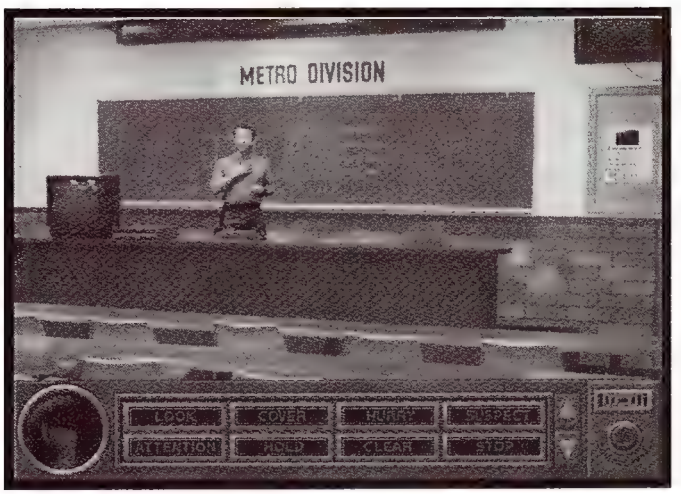
Q: What did you use it for on *PQ: SWAT*?

A: We used it for a number of inventory items that I shot, some of the firearms, what we call "add-to pics." If you see something like a greaseboard in the foreground, a lot of times we used the DCS 200 because it was fast and easy.

Q: What are add-to pics?

A: They're single cels of animation that weren't included in the original picture. It could be anything, like a television set. Say we shot a room

but then we realize we need a TV in the room. I'd shoot a picture of the TV with the DCS, cut it out, and then paste it into the background.



"I'd shoot a picture of the TV with the DCS, cut it out, and then paste it into the background."

Q: So with the DCS, the whole processing thing goes out the window.

A: Yeah. Environmentally I guess it's better because there's no film involved, no plastic or chemicals.

Q: What do you do to the raw video footage before it can go into the game, and what art tools do you use for that process?

A: What we have to do to our animation to bring it into the final game is a pretty complicated process. First off, we shoot everything like we would shoot anything on a full film or video studio stage. Actors are hired. Since all our actors are Screen Actors Guild (SAG) actors, there are a number of union considerations to deal with. We shoot at Sierra Studios, which is our brand-new, state-of-the-art digital stage. We film everything against a blue screen using what's called an Ultimatte 6 system.

Photo by Rod Fung

"We film everything against a blue screen."

I'll give you an example to demonstrate the way that works. Let's say the actor needs to run through a room, pick up a gun, and shoot out the window. We shoot it on the blue screen. We can see a precomposite picture of the background photo of the actual room with the window in it and the guy walking into that room, even though he's actually walking on a blue stage. We look at this on another monitor so that we can line things up. Using a Sony Betacam SP camera, we shoot all of it on Beta tape, and then later digitize it. Basically, that's how we shoot all the animation.

We were in the studio for a little over two months and shot thousands of takes. When I look at all the stuff on the CDs, it's just amazing. Each take required its own set-up. I'm remembering just how hard everyone worked because you shoot a shot and then you have to reset the whole thing, you have to relight it. Everyone did a really good job.

Photo by Rod Fung

The scene as it was shot in the studio.

The scene as it looks in the game.

Q: By set-up, do you mean blocking the actors so they won't look like they're walking through the walls?

A: Exactly. Set-up includes blocking, lighting, camera angles, everything. What we try to do is duplicate the conditions of the photo that I shot on location. It's got to be the same camera height, the same depth of field, preferably the same aperture and direction of lighting.

Q: Sounds like it would be easier to go out and shoot on location.

A: Well, we thought about that, but there are some problems. Games are not movies. They're interactive, so a lot of things need to happen in each individual room. In this game, there may be six or seven things that happen in one room under different cases. All of those would have to be filmed on location. Location filming is very expensive and difficult to do.

There's also a technical reason for shooting everything on blue screen. At some point, we're going to have to separate the animation from the background. We want to give the impression that the two elements, the view and the background, are bonded together, but they're not. At all stages they need to be separate items, for the programmers as well as the artists. If we shoot on location, all of the elements would have to be separated at some point, unless you're running an AVI movie for every sequence, but I don't think that makes the game too interactive.

Q: OK, so now we have all this raw video. What happens next?

A: The raw video footage is then digitized at the studio. They'll take all the raw video, which is 29.97 frames per second, and they'll break it out into 10-frames-per-second AVIs (Windows movies). The AVIs have 22K, 16-bit audio attached to them. Sierra Studios put the digitized movies on CDs, about 15 of them for this game. We shoot a slate at the head of each take so we'll know what room it goes to, what shot number it is, and other pertinent information. We crop that off, and we also crop the end off because you'll hear Tammy call, "Cut." So there's an editing process involved here as well.

Depending on how the programmers want to run the animation, we have to chop the longer scenes into separate pieces of animation. It just depends on the room, the layout, and the action. There are a lot of considerations involved here, but once we have the edited AVI, we mold it to fit into the room. So we'll take samples of all the animation for that room, say there's 10 different

things that happen, we'll put them into that room, and then color balance them in PhotoShop. We shot in the studio under pure white light. Most of the time real people aren't in pure white light, so we adjust each AVI to make it fit the background.

Also, all the AVIs for each room have to have the same color palette, so we have to come up with a unique palette that works for everything in that room. It's a difficult process. It's like doing everything backward. You have to think about all the possibilities that can happen in that room, then you have to allow for only certain colors. We have a maximum of 236 colors to use so everything has to work with those 236 colors: the background, the animation, the add-to pics, everything. I see it as kind of a hat trick. The goal is to make it look like we weren't limited by colors. I think we did a pretty good job of it.

Q: It sounds very complicated. Can you run down a list of the art tools it takes to accomplish all this?

A: Let me think. We open everything up in Video for Windows. Adobe Premiere has been a great help in color balancing and adjusting, matching, and synching sound. Adobe PhotoShop for any type of painting. All the backgrounds were brought into PhotoShop and manipulated so you can see all the doors opening, etc. Animator Pro was also used to clean up the animation. A lot of times animation out of the studio needs a little touch-up work. We use some proprietary art tools that were developed at Sierra, the main one being the Animation Editor, a 24-bit, cel-animation paint program that allows us to cut and paste, animate, manipulate, do whatever we need.

One thing I'd like to add is that we couldn't have made this game without the support of all the art staff. They did a great job. The lead artist, Terry Robinson, added a level of graphic design that I don't have. He was able to look at the design, look at my rough sketches, talk to Tammy, figure out what was required, and come up with some really nice stuff. He did stuff that no way could I ever do. He's an excellent graphic artist.

Q: Is there any advice you would give to aspiring computer game artists?

A: Games have gotten very sophisticated in the past couple of years. There have been a lot of different types of games and a lot of new technology. I think it would be best to have strong technical abilities because that's really important now. There are a lot of creative people, but if you don't have the technical ability, you'll never be able to use any of that creativity on a computer, at least not for computer games. Like I said, it's a hat trick. We're constantly facing new challenges every day because something's not working. We have to come up with fast decisions on what needs to be done and how to do it. We're constantly breaking new ground, trying to find new ways of doing something.

SEAN MOONEY & RANDY MACNEILL

LEAD PROGRAMMERS

"With SWAT, our goal was to not limit the player in any way. We wanted them to be able to do whatever they wanted within the environment."

— Sean Mooney

Q: You two are the co-lead programmers for *Police Quest: SWAT*. How did you divide the responsibilities?

RM: The basic responsibilities of a lead programmer are to figure out how long it will take to program the product, how many people you'll need to do it, scheduling...

SM: ...the necessary systems requirements, how to incorporate new technology into the game. It's pretty easy to schedule this game because there are only a couple of basic areas: the three scenarios with one programmer working on each scenario, and the front end, which is the non-scenario part of the game. Randy has been working on that portion of the game. Then there's the global code.

Q: Could you explain global code?

RM: It's code for things that can happen anywhere in the game, like the LASH interface, which can happen in any scenario. The funeral stuff can happen anywhere in the game...

SM: ...the scenario dispatcher that announces the call-ups at any time in the game.

Q: I see, things that aren't room specific. The code for this game is written in what language?

SM: SCI, Sierra's Creative Interpreter. It's a high-level, object-oriented language that was designed with game development in mind by Sierra systems programmers. You can get a room up and running with animation and sound within just a few minutes. It's very easy to incorporate resources.

RM: And very portable.

SM: It's an interpretive language so it makes it easy to port from DOS to Windows to Mac.

```
(instance hitNineShot of Script
	(method (changeState newState)
		(switchto (= state newState)
			(
				(theGame handsOff:)
				(qualProd dispose:, delete:)
				(messager say: ALL ALL QUAL_HIT_9_C ALL self 320)
			)
			(
				(++ nineShotCntr)
				(qualList dispose:)
				(target1 dispose:)
				(messager say: ALL ALL QUAL_RELOAD_9_C ALL self 320)
			)
			(
				(if (== nineShotCntr 9)
					(Bset fQualifiedSniper)
					(curRoom newRoom: ANGELES_TABLES)
				else
					(target1
						view:	3329,
						setLoop: 2,			;One inch target
						setCel:	0,
						posn:	495 370,
						setPri:	470,
						init:	((snipePlane casts?) at: 0) ftrInitializer,
					)
					(= qualList (List new:))
					(qualProd setReal: qualProd 6)
					(theGame handsOn:)
					(self dispose:)
				)
			)
		)
	)
) ;hitNineShot
```

Sample of SWAT code

Q: Randy, you've been at Sierra a long time. Did you have a hand in the creation of SCI?

RM: No, it was created by Jeff Stephenson.

SM: In 1987, wasn't it?

RM: Yes, just before I got here. They were just finishing up with AGI (Adventure Game Interpreter). The first game in SCI was *King's Quest IV*, I believe.

Q: Could you give a thumbnail description of how an object-oriented language works?

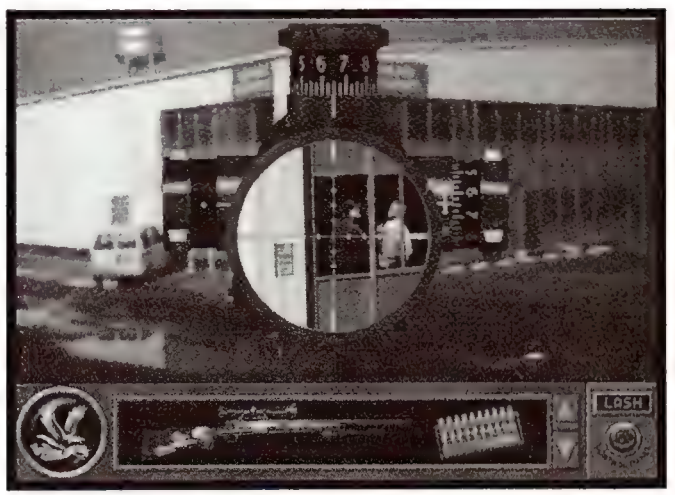
RM: An object, like a character on the screen, has certain attributes: a view, a loop, a cel, its coordinates, its heading. Whatever data that object needs to know is incorporated within that object. The whole system knows how to talk to each object, for instance, to move it from one location to another.

Q: When you look at SCI code, it almost looks like English: Go here, walk there, do this, do that. Isn't there an entire foundation of low-level code that makes high-level commands like that possible?

SM: We have a kernel written in C++ that interprets the code into the machine language.

Q: Sean, Tammy told me that you're really proud of your sniper interface. Would you like to brag about it a little bit?

SM: We tried to be as accurate as possible with the whole sniper interface. We incorporated drift, the bullet drop for that particular rifle, the SR60 .308, and that particular ammunition. We put in as many variables as possible because we want it to be as interactive as possible. We have the scope with the Bullet Drop Compensator and the Windage Compensator. We've got varying distances and the different targets that SWAT actually uses. They shoot balloons, they shoot one-inch targets, one-and-a-half-inch targets, and two-inch targets at anywhere from 25 to 500 yards. We have the dope book that records all of that information so you can track your progress and see how you've done. SWAT tracks every bullet in their dope books so that they know the time of day, the temperature, what kind of bullet it was, so they can better estimate their shots when they're out on a real crisis.



"We tried to be as accurate as possible with the whole sniper interface."

Q: You built all these random factors into the interface so that the player gets a true-to-life experience.

SM: We tried to put as much in as possible.

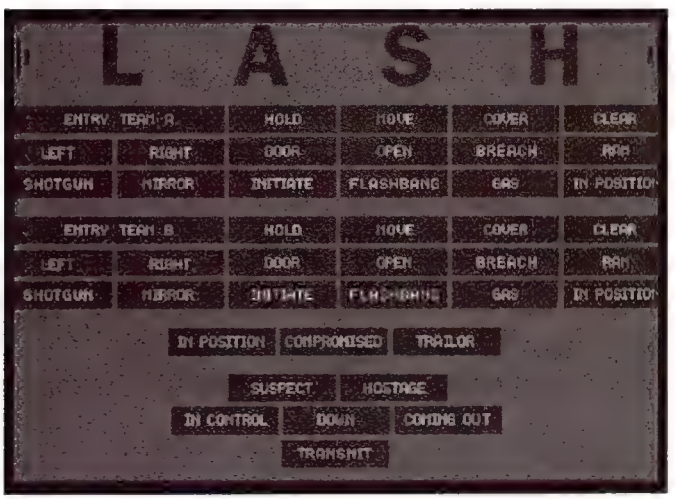
Q: Randy, has coding *Police Quest: SWAT* presented you with any unique challenges?

RM: I've never had the opportunity to do a global interface code before. What else have I done?

SM: You did the LASH, the mirror inset....

Q: The LASH interface is kind of a throwback to the old word-parser days.

RM: In a roundabout way, it is. Instead of parsing a sentence that the user has typed in, we provide a set number of words to choose from. As the element leader, for example, the player should be able to move through a scenario by clicking on instructions like "Enter Team A," "Move," "Breach Door," or "Flashbang." You can do all these things through the LASH. I also did the Inventory, which is pretty cool. It slides instead of just popping up to the different items. We also have a three-level interface that should be a lot of fun to manipulate.

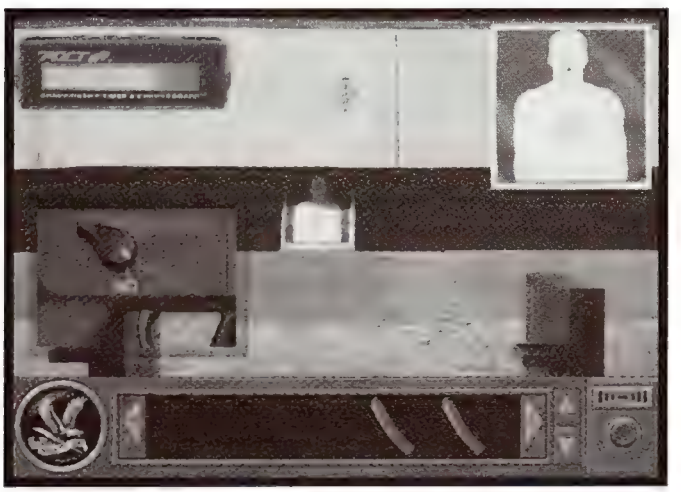


"We provide a set number of words to choose from."

SM: It's not like anything Sierra's ever done before. It's very hot the way it rotates like a watch display or something like that.

Q: It makes a neat noise, too: kechunk!

SM: The Small Arms Range is pretty fun. We coded that together. We incorporated a Pact timer. Pact authorized us to use their design, which tracks your times during a particular drill. In other words, if a drill calls for three shots, two to the head, one to the body, the Pact timer records how long it took you between each shot. You have a par time; you're supposed to do the drill within a certain amount of time. The interface not only tracks how your bullets did, it also tracks how long it took and returns if you shot any over par.



"The Small Arms Range is pretty fun."

Q: Will your times be affected by the speed of your computer?

SM: The Pact timer runs off the computer's internal clock, so it won't be affected, but your reaction time might be affected by your computer's speed. It won't be a noticeable difference. When the user plays the game off the CD, it should be a really nice performance.

With *SWAT*, our major goal was to not limit the player in any way. We wanted them to be able to do whatever they wanted to do within the environment. We don't throw up red Xs or anything like that. There's a response for just about everything, there's unique animation for just about everything. We tried to make it as interactive as it possibly could be.

Q: So if you really want to shoot your partner, the game's not going to tell you, "That's not a good idea."

SM: Right. The game will let you do it. There are consequences, but it will let you do that. We want the players to have fun with it, to play it again and screw around if they want to.

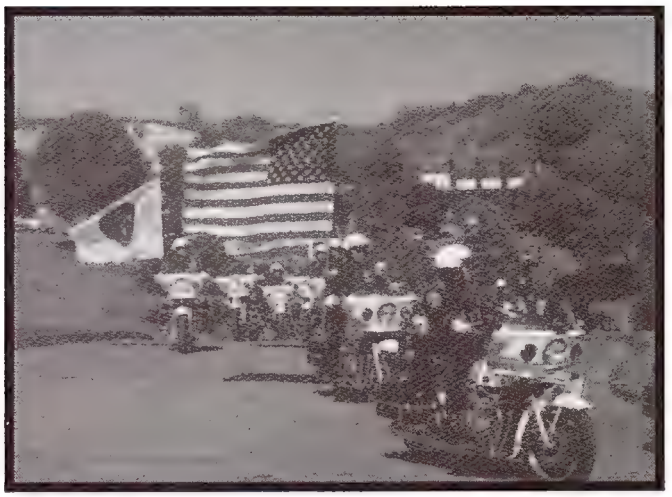


Photo by Rod Fung

"There are consequences..."

Q: Is there anything else you'd like to say about the game?

SM: Working with Tammy has been nice because if you have creative ideas, she's open to input. If I say, "This part of the game would work better and be so much more fun if we did it this way." Everyone on the team has been able to add their own creativity to the game. It's really evolved from the way it looked at the beginning. It's been nice to be able to do that.

DAN KEHLER

MUSICIAN

"We're trying to add emotion to the game where it's needed, but we don't want to distract from the game."

Q: What are your responsibilities as the musician for *Police Quest: SWAT*?

A: I'm responsible for all the background music, anything that would enhance the mood or quality of the game. Victor Crews will be handling some of the sound effects, but I'm ultimately responsible for anything that has to do with sound in the game.

Q: What musical style have you chosen for this game and how does it add to the emotional impact?

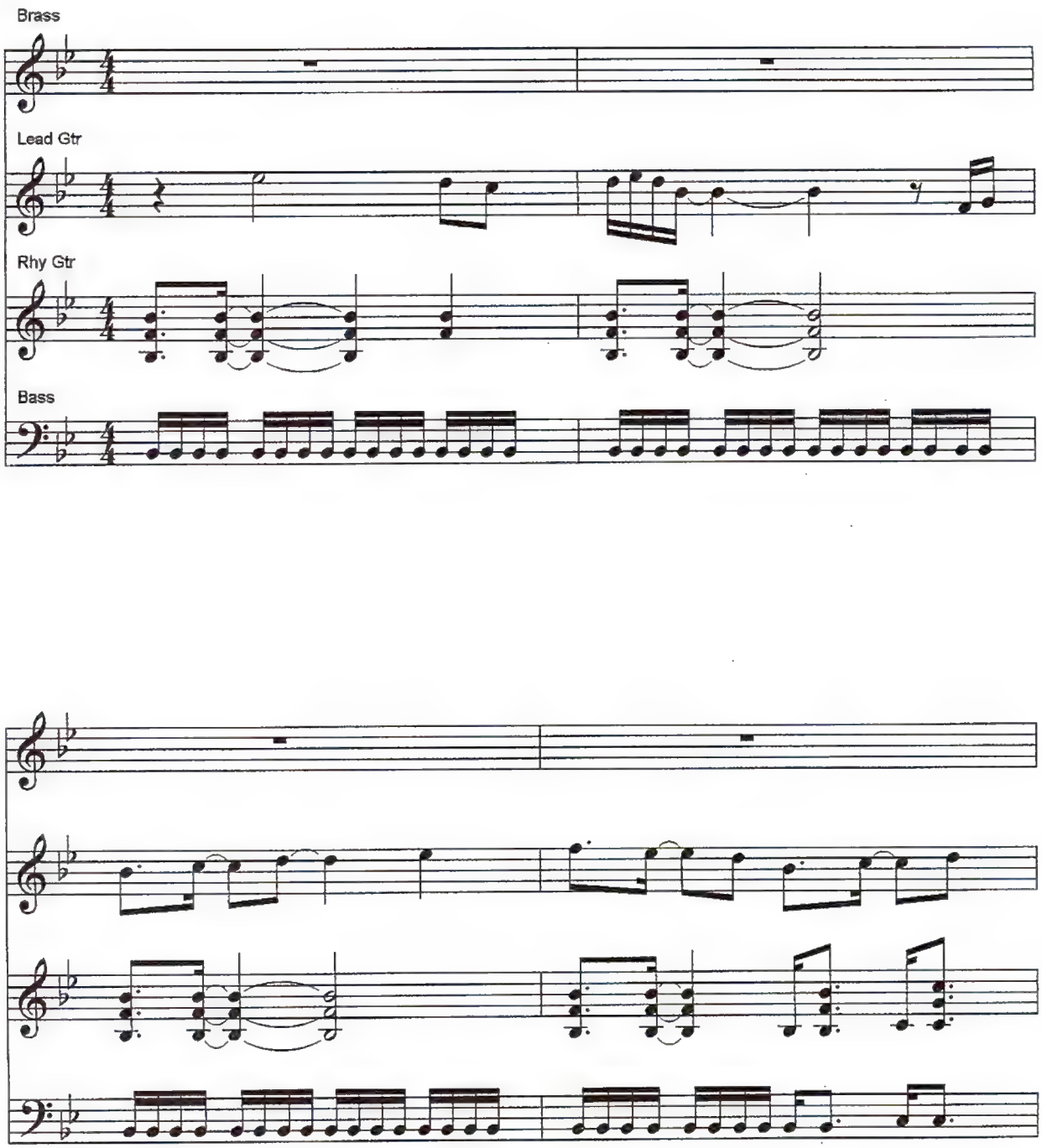
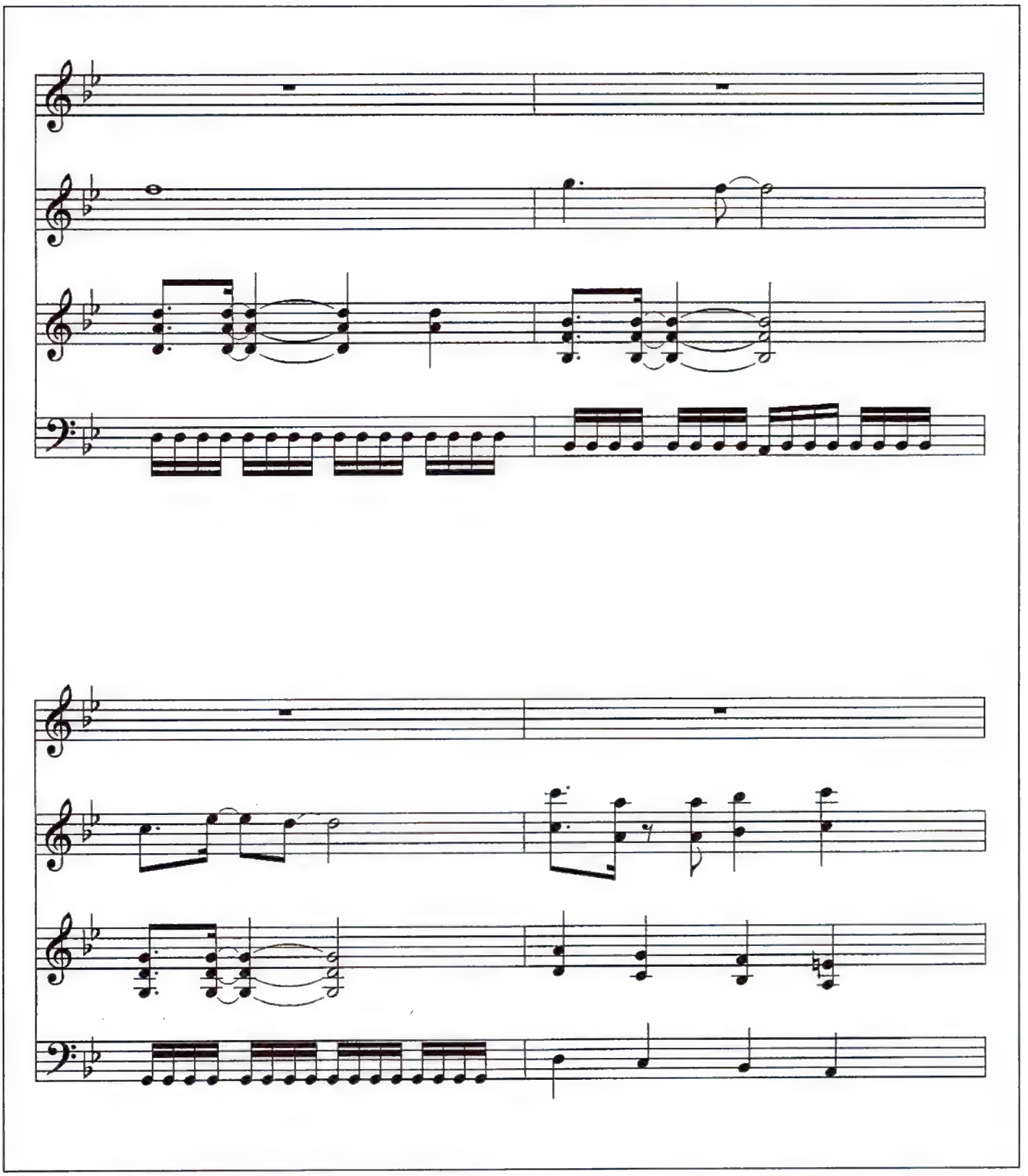
A: We're trying to add emotion to the game where it's needed, but we don't want to distract from the game. Any time there's important dialogue going on, there will probably be very little music, but when there's action going on, there will be plenty of music to underscore the excitement, tension, or suspense. We try to underscore what's happening instead of just putting music into the game.

I watched several films to get ideas for the game, action adventure-type movies like *Sniper, Clear and Present Danger,* things of that sort that would have similar situations. As far as style goes, you really couldn't classify a style such as classical, jazz, or rock. It's more of an atonal type of music that presents a mood.

Q: Technically, what kind of music are you putting into the game?

A: Well, this is going to be a unique game because we're going with all digital music as opposed to using MIDI. Depending on what's happening in the game, whether there's an AVI playing or whether it's regular SCI game code, we'll have to plug in the music differently. Technically, we're coming from just about every angle you can. We can attach music to an AVI and put that in the game, or we can digitize the music and have the programmers stuff it up into memory and call it that way. It will be on a case-by-case basis.

SWAT MAIN THEME

Dan Kehler

Q: So most games use MIDI?

A: They have been up to this point. We're just now starting to branch off into pure digital music. The way we have been doing it, we'll write music and store it in a MIDI file, which is very small and doesn't actually include any sound in and of itself. It's a series of code that tells the player's sound card what notes to play, how long to play them, and how loud to play them. The sound card on the machine produces the sound.

When we go digital, we're actually storing the sound digitally in the game. When our programs call those sounds, the player hears the sounds that we recorded, just like it would be on an audio CD. The benefit is I know exactly what that sound is going to sound like on all those cards. The downfall of MIDI is that everybody has a different card. Some people have better cards than others. On some cards, the music could sound very good, and on others it could sound very bad.

Q: How do you create music to synchronize with any number of gameplay possibilities?

A: What we do is create different bits of music for each scenario. For instance, let's say you walk into a room. There are three doors you can go through, and somebody is behind one of those doors. We would have a 30-second piece of music that represents some suspenseful sounds that will repeat as long as you stay in that room. If you go through Door #1 and nobody was there, you might hear just a little bit of change in the music, but it wouldn't represent the big-bang surprise of someone being back there. If you go through Door #2 and the person was back there with a gun, then the music would change drastically. The program would call the new piece of music and the old piece of music would stop.

"We would have a 30-second piece of music that represents some suspenseful sounds."

Q: How do you make the transitions?

A: The transitions are the toughest part. If it's a mild transition visually, we'll fade one piece out and fade one in. If it's going to be a surprise where somebody is behind that door and they start chasing you around, we don't want to fade in because that's a lax sound. We'd do a drastic switch from one right to the other. We might even have something very big like a cymbal crash right at the beginning to represent how drastic a change that is.

Q: Is it hard to synchronize sound effects with things that happen visually?

A: Usually not. With the AVIs we're using, sounds should travel at the same rate as everything that's happening in the movie. Everything should sync up just fine. If we're doing things in SCI, we can tell the programmers exactly what cel to play a sound on. If they're doing a loop of animation and, say, someone is reaching for a door and Cel 13 is where he turns the doorknob, I can tell the programmer, "OK, I have a doorknob sound and it's Sound 23. When you hit Cel 13, play that sound." So it's very easy to keep things in sync.

Q: How do you make sound effects?

A: We have a huge digital library that has a lot of examples, just about everything you can imagine. We'll go to that library and find whatever sounds we have. Occasionally, either the sounds don't fit because they're too long or too short, and we'll have to do some editing. Occasionally, there will be a situation where there just isn't a sound that we need, so we'll go into the studio and record something to mimic whatever is happening at the scene.

Q: How does being the *Police Quest: SWAT* musician compare to your previous experiences?

A: This game is much more challenging, sound-wise, than anything I've done because we're going with the blue-screen video capture, using live sound attached to that footage. That requires a lot of extra clean-up work that's not really musically oriented, which I haven't had to deal with on a game before. That's kind of a challenge. We're learning as we go.

PHY WILLIAMS

CO-PRODUCER & ARTIST

Photo by Rod Fung

Phy Williams (with Nick Scroggins)

"We all came together as a bunch of strangers, but after spending 10 hours a day with these guys, you get kind of a strange closeness."

Q: You wear several different hats on this project. What are some of your many responsibilities?

A: I manage the team, take care of equipment needs, organize, schedule, things like that.

Q: That's for the team working on the game as well as in the video studio for the actors, right?

A: I was the production manager for the actors. I took care of their contracts, the meals, the hotels.

Q: You must have put a lot of miles on your car. Now that the videotaping is over and you're back in the office, how do you organize all that material?

A: In a way, we all have a hand in organizing it. The studio breaks up the views and sometimes finds things that we're missing, audio or AVIs. It's pretty much like managing an animated game except that I'm not calling out-of-house animation studios, I'm calling our video studio.

Q: How many individual pieces of videotape are you dealing with?

A: I think we figured it to be about 1,600 different actions, or takes.

Q: You're also an artist, right?

A: Yes. I worked on the game backgrounds, touching them up so they're more "playable." I fixed doors and walls so that the actors can interact with them. I take a still photo and animate it.

Q: Getting back to the video studio, what was it like going there on a daily basis for two months?

A: It was fun. The crew, Bill Crow and all the guys, are neat to hang around with. They're fun people. The actors are from San Francisco but a lot

of them have lived all over the country. We all came together as a bunch of strangers, but after spending 10 hours a day with these guys, you get kind of a strange closeness. We spent 60 days together in one little room.

Q: Do you think any lasting friendships were formed?

A: Yeah, I do. I think they'll remember all of us. We still get phone calls.

Q: Do you have any funny stories about things that happened in the studio?

A: We had an actor, Tom Cassel, who wants to sing on Broadway so he does a lot of off-Broadway, L.A., that kind of thing. He's a great singer. He knows every single show tune ever written, every Frank Sinatra song, even Sesame Street. Peter Callender also likes to sing. We had this serious scene where they show the player how to load the gun. It's very dangerous. They started singing a song from "Guys And Dolls" and they really got into it, doing the show business thing with the hands and everything, and then they instantly turned around and finished the dialogue. It was hysterical.

"We do have a good Easter egg of Doug dying."

Q: Did any of that make it into the game?

A: I don't think so. We were hoping to put that song in, but I'm not sure how the copyright thing works. We do have a good Easter egg of Doug dying though. He looks at the camera as if to say, "You are such a jerk." Then he makes a funny face and keels over dead. I think that's a random thing that shows up once in a while if you kill Pacmeyer. On the whole, the guys were very intelligent, very well-read, and interesting. They had the greatest sense of humor.

The *SWAT* advisors were great too, very different from what I expected. I was expecting the macho cop types. But for example, Bob Bennyworth paints and when he showed us his paintings, he was so sensitive. Greg Horton has a real softness about him even though he's macho as all heck. None of them were chauvinistic, not at all.

"Greg Horton has a real softness about him even though he's macho as all heck."

Q: How do you think the game will do?

A: We had done photorealism before, and I'm really surprised how good this game is, artistically. Graphically, it's outstanding. I've never seen a computer game this clean. It's amazing. I'm not really into MP-5s or cops or anything like that, but I find this game very interesting. It's so well-acted and the scenarios are fascinating. I think it will be a good seller.

Photos by Rod Fung

BILL CROW

VIDEO STUDIO MANAGER

Bill Crow as Bobby Joe Bates

"The most enjoyable aspect of playing a part was the chance to shoot an automatic weapon."

Q: What is your job description?

A: I'm the overall manager of the studio, so that makes me the production manager, the production supervisor, and the post-production supervisor for *SWAT*. I run our studio, so I supervise the full-time staff. I'm the chief engineer for the studio. I designed and built the studio itself and the facilities we have here.

We've created a fairly large number of computer-based tools to automate this whole process of producing the video for computer games. They are mostly aimed at keeping track of literally thousands of video takes because an interactive game is so complex with all the possible options. Indeed, a single scene may be filmed as a number of individual video elements that are then combined. There's just a huge amount of data to keep track of. We've built a lot of our own custom tools to manage that whole process.

Q: How many people do you have on staff?

A: We have a full-time staff of six, counting myself.

"My staff has a lot of cross-experience so they do a little bit of everything."

Photos by Rod Fung

Q: What are their job titles?

A: My staff has a lot of cross-experience so they do a little bit of everything. Specifically on *SWAT*, Bob Ballew was our video and Ultimatte engineer. He ran the control room. Craig Denny was our camera and lighting man.

"Craig Denny was our camera and lighting man."

He worked in conjunction with Rod Fung, who is the art director and cinematographer for the game. Ron Lawson is another one of my video engineers. He also was the audio engineer for a portion of the shoot, and we had an outside engineer to assist. Ron is the post-production engineer, taking care of all the work associated with getting these thousands of clips of video digitized into files. Rob Koppel is another video and post-production engineer. But, he actually didn't have a lot to do with *SWAT*. He was still working on *Phantasmagoria* during the project.

Q: How did SWAT differ from the other games you've taped here?

A: Obviously there are a lot of things that are the same. *SWAT* is a little different style of game, more of a simulation than a story-based game. Much more of what we shot for *SWAT* was small, individual elements: different members of the SWAT team moving from point A to point B, the bad guys appearing in different places. The game provides so many options for where you can be, where your team members can be, where the bad guys might be hiding, and then of course there's all the possible choices of interaction: whether you shoot with a rifle, shoot with a handgun, throw a stun grenade, or move one of your team members. With *SWAT*, we filmed lots of these individual elements that will be brought together when you play the game, based on the choices you make.

Q: As opposed to scenes between the actors.

A: Exactly. *Phantasmagoria* and *Gabriel Knight* are much more story-based, so more of what we film is like what you might film for a motion picture or television show in that you're creating a scene with multiple camera cuts to put together a mini-story, and those are strung together by the interaction in the game.

Q: Besides what you just mentioned, are there differences between shooting video for a computer game as opposed to TV or film?

A: There's a couple differences. First of all, the projects to date have all been done on the blue screen using either 3D-rendered backgrounds

"The actors are on a blue stage, not actually on the location."

Photos by Rod Fung

(as in the case of *Phantasmagoria)* or the photographic backgrounds we're using in *SWAT*. The actors are on a blue stage, not actually on the location. That technique is certainly used in film and television, but typically only to a small degree for special effects shots or other things that simply can't be done in reality.

The nature of a computer game is that everything needs to be shot that way because we're creating these individual elements; the foreground characters are separate from the background picture, and they are only assembled when you play the game, based on the choices you make.

Q: In the case of a game like *SWAT*, with a photorealistic background, why can't you go out on location and do take after take after take?

A: We could, but in a game like *SWAT,* that would really limit the options. To use a particular example, we can have the bad guys pop up at any time from any number of locations. When you're playing the game, you may have some of your team members in the foreground, and where your team member is vs. when the bad guy might pop up in the background is a variable. If we shot that on location all as one scene, the relationship between those two elements would be fixed because they were filmed at the same time. By filming them separately and making them separate elements, the programmers can control those elements independently. They can have the team members move based on your command, but the bad guys might appear based on some random factor.

Q: So you place them like cut-outs.

A: Exactly. So to create those little electronic or video cut-outs, we have to shoot against the blue screen stage. Each element is able to be separated out, then pulled together when the game's pulled together. There are other factors as well. A lot of times, it's a lot less expensive to do all your filming in the controlled environment of your own stage than to be out on some location somewhere, especially if that location is very difficult, complex or expensive to use.

The video studio control room

Q: Now for the fun questions. I hear you were actually cast in the game. What part did you play and what was it like being on the other side of the camera?

A: I actually play two characters in *SWAT*. There's one scenario where some members of a militia take over an office building. I play two different members of the militia, in one case wearing a ski mask so you couldn't see my face, in the other case, just wearing a baseball cap.

"I play two different members of the militia, in one case wearing a ski mask so you couldn't see my face."

Photos by Rod Fung

Q: Identical twin terrorists, huh?

A: Exactly. We referred to my two characters as the Uzi Brothers because I toted an Uzi automatic weapon.

Q: Did you fire it?

A: Absolutely. We used a tremendous amount of live fire for this game. They're obviously blanks, not real bullets, but we used real automatic weapons to give it a very realistic look. The most enjoyable aspect of playing a part was the chance to shoot an automatic weapon. In reality, I didn't get to pay attention to the fact that I was playing with an automatic weapon because of the challenges of both giving a believable performance and doing things exactly right.

It's fairly technical creating all these little cut-outs that have to line up perfectly with the background, so I'd have to make sure that when I jumped up from behind a pile of cartons I held the gun high enough so that it cleared the cartons which, of course, weren't really there on the blue screen stage. It was a tremendous amount of fun. A lot of work. I don't envy actors and I don't think it's something I'd like to do all the time because it is a tremendous amount of work. But it was a lot of fun.

Q: What was it like working with weapons and explosives on the set? What precautions did you take?

A: This was our first production where we actually used firearms and other pyrotechnics within a game. We decided that if we're going to do anything like that, we definitely want to bring in professionals, the best in the business. We hired a company called Stembridge Gun Rentals. They are absolutely the biggest and the oldest gun rental company in Hollywood. You name the action pictures you've seen, everything from *Waterworld* to all the Schwarzenegger pictures, all the big action pictures, and Stembridge is the company that provides the guns.

"We used a tremendous amount of live fire for this game."

We felt it was important to bring in the best professionals we could. We basically put the whole issue of weapons management and safety in their hands and followed their guidance and instructions. They were very good about it. All the actors and crew members received briefing and training on how to use the weapons and what the safety precautions were. The gun handlers from Stembridge loaded the weapons, then handed them to the actors just prior to a take.

Usually when we shoot a shot, we start the video tape, call "Speed," the director calls "Action," and the scene begins. We added to that discipline the call for when the actor was supposed to turn the safety off on the weapon and, of course, as soon as the director yelled "Cut," the call went out for the actor to turn the safety back on. Then the gun handler immediately came on stage and took the weapons. With anything like that, there are a lot of steps you take to be very careful because even with blanks, weapons can be dangerous.

Photo by Rod Fung

Q: When I was on the set, I also noticed there was a call for everyone to wear their ear muffs too.

A: That was for protection because we were shooting on a closed and fairly small sound stage, using what are called "full loads." The amount of powder in the blanks is controlled, and of course we wanted the largest muzzle flashes we could get to make it impressive and exciting. That translates to a tremendous amount of noise in a small, confined space. All the actors wore ear plugs and anyone who was on the stage crew had ear muffs for protection as well.

There were several scenes where there was a gunfight, good guys and bad guys shooting at each other, sometimes at quite close range. Sometimes you can cheat the camera. You don't actually aim at the other person. Again, even though we're firing blanks, there's still some powder that's thrown and some other small particles. With a weapon like a shotgun, there's wadding that's shot out. So even with a blank, you never want to point it directly at another actor. In some scenes, they were able to aim off to the side, but from the camera's eye, it looked like they were aiming right on.

"You don't actually aim at the other person."

In some cases that wasn't possible, and that's where the magic of blue screen helped us out. We were able to shoot the person firing the gun and the person being shot as two totally separate elements. Then we composite them together after the fact. It looks exactly like the bad guy jumps out right in front of the cop when you make a mistake, shoots him at close range with an automatic weapon, and the cop falls back and dies. In reality, we filmed those two elements at different times on the stage, and it was in post-production that we assembled the pieces.

Q: Is there anything you'd like to add?

A: *SWAT* was a real exciting project for us with all the pyrotechnics in addition to the automatic weapons. We used flashbangs, live stun grenades, on the stage. All of that, plus being an action-oriented story, made it a very exciting shoot. I think the experience we all gained in *Phantasmagoria*, which was our first full-video production, helped us a lot in *SWAT*.

"We used flashbangs, live stun grenades, on the stage."

The whole *SWAT* team was really driven by Tammy Dargan, who has tremendous television production experience in her background before coming to Sierra. There's so much exciting video

Photos by Rod Fung

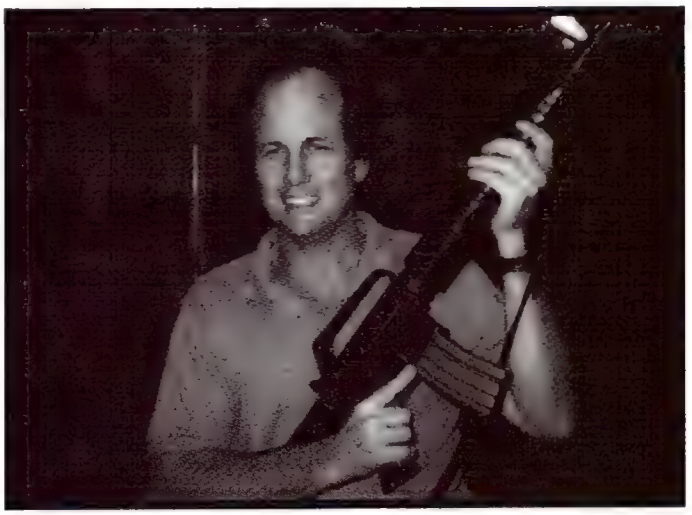
in the game. It's a very complex game to put together, but it went like clockwork, on schedule, because Tammy's an excellent video and production director in addition to being a great game designer. We had a great time.

Q: Do you think the excitement you felt producing SWAT will carry over into the game?

A: Absolutely. I like all the games, but this is one I really can't wait to play. Like all the *Police Quest* games, there's a tremendous amount of realism. *Police Quest 4* was a tremendously realistic game, but so much of *Police Quest 4* was detective work which, as any detective will tell you, is a lot of drudgery. *SWAT* is all action. You have to understand the procedures and follow them correctly, but virtually all of the game play has you right there in a real exciting action situation with a lot of things going on. I think it's going to be a gas.

SYD STEMBRIDGE

ARMORER



"What I'm doing here is making sure the guns work well and that the guys are using them properly and safely."

Q: Explain your occupation, please.

A: I'm the manager/president of Stembridge Gun Rentals. It's a family business. I'm the third generation in Stembridge Gun Rentals. We rent guns, weapons, etc., to the motion picture industry, to television, theater, all that. We've been doing it since 1920.

Q: Since the days of D.W. Griffith and Cecil B. DeMille?

A: Yes. My dad's uncle started with Cecil B. DeMille. I have a picture of my uncle cleaning guns outside the barn in which Cecil B. DeMille filmed *The Squaw Man* in 1913. I have pictures of him with C.B. DeMille in 1916 when they were in the Paramount Home Guard together. Stembridge Gun Rentals was at Paramount Studios from 1926, when it first opened, until 1979. That's when we moved out of Paramount; now we're in Glendale. When I was a kid, I used to play on the lot. When we'd play cowboys, it was on the Western street where they used to film *Bonanza* and *Gunsmoke*. It was really neat.

Q: So it's pretty obvious how you got your start in this business.

A: The easy way: I was part of the family. I've done this for 25 years now. I'd go down to the studio when I was still in high school and help load blanks, play with the guns, all that stuff.

Q: Is this the first computer game you've worked on?

A: The first one I've done. We've had other guys from Stembridge Gun Rentals that have gone out and done a few others, but this is our first one with Sierra On-Line.

Q: Why were you hired to work on *Police Quest: SWAT*?

A: We have some MP-5-type machine guns, which is what LAPD SWAT uses. That's what they asked for, so that's what we brought up. To have machine guns on a set, you have to have federal and state permits to transport and possess the equipment. We also have some automatic pistols

being shot. We have the shotgun being shot. We also make the blanks for the weapons. So basically, what I'm doing here is making sure the guns work well and that the guys are using them properly and safely. I've got the help of the SWAT members themselves because they know the actual use of them realistically whereas we deal with movies, yet we try to be realistic.

"To have machine guns on a set, you have to have special permits."

Q: Of course I've heard of them, but what exactly is a blank?

A: A live shell has a bullet or a projectile on the front which comes out of the gun when you fire it. A blank uses the same type of powder that you'd use in a live round but it just has powder in it. When it goes off, it creates gas pressure due to the expansion of the powder burning. The gun has to be "blanked up" to restrict the gas flow in the barrel. To do that, we put a plug in the barrel. It's not a full plug, more like a metal insert with a hole smaller than the diameter of the barrel, like the size of a .22 or smaller. It still allows the flash to come out the front, but at the same time it's creating back pressure in the gun's system itself which opens the bolt up.

Q: Does the blank stay in the gun when it fires?

A: No. When the gun fires, it throws the blank out just like it would a live round. The gun operates just like it would if it were firing live. There's still a lot of pressure. Guns are not designed to fire blanks, they're designed to fire live ammunition. We've done real well so far. We haven't had a jam yet, which is very difficult to do with blank-firing guns. They jam a lot more with blanks than they do live, but we take pride in the fact that we have them set so they work well.

Q: Do some of the actors have previous experience with weapons?

A: Yeah, these guys are real good. They really listen, they really want to know. Sometimes you're on shows where you get people who act as if they already know. That's when you have to watch them because they're not listening. You have to make sure they know what they're doing, make sure they're safe, not firing at somebody within certain distances, not pointing the things at anybody at the wrong time. But these guys are good. I already told them, "If I see you doing anything wrong, I'm just going to keep reminding you. That's why I'm here." They said, "Fine. That's good." It makes them feel good to have me here.

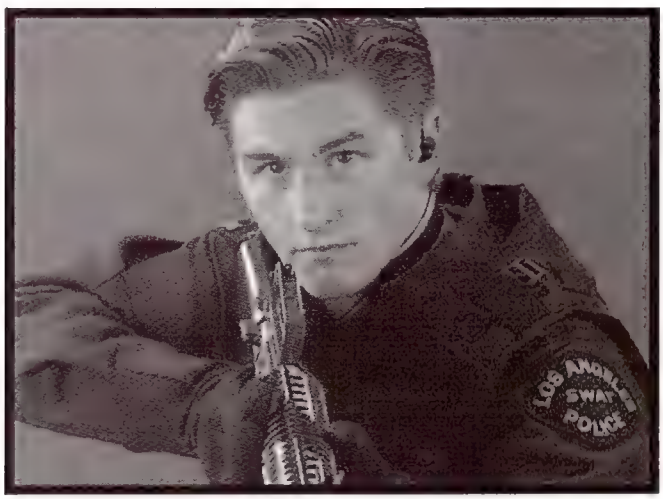
"Yeah, these guys are real good. They really listen, they really want to know."

Photos by Rod Fung

MEET THE ACTORS

ERIC FLOM (SWAT Pup)

I was in the military for eight years and am a Desert Storm vet. I love shooting sports. My first acting experience was in college. I figured four easy units, what the heck? But I got bit by the acting bug. I studied drama in San Francisco.



This is my fourth CD-ROM project. The challenge of acting in a computer game lies in giving a convincing performance while acting against nothing but a blue screen. The actor must use his hyperactive imagination to make the blue background come alive without hallucinating too much on the drive home.

Spencer Tracy once said that great acting consisted of knowing your lines thoroughly and not tripping over furniture. Well, that's one barrier eliminated. On the blue screen the furniture is imaginary and the only safety hazards are my own two feet.

STEVE BARKLEY (Sgt. Rooker)

I'm 44 years old and live in Pacific Grove, Calif. My hobbies are mountain biking, camping, white-water rafting, and running. I study Norse and Germanic mythology. I've been a stand-up comedian for the past 20 years. I've written and performed in various TV and radio commercials. I also do voice-over work. The first video I performed in was Michael Nesmith's *Elephant Parts* which was the first video to ever win a Grammy.

I loved working on *Police Quest: SWAT.* It was different than anything I'd ever done before. It was so weird working with a blue screen background and seeing them add all the scenery later. Our day would begin at 8:30 a.m. I'd change into my SWAT uniform: boots, gloves, goggles, helmet, pistol, and MP-5 submachine gun. Then I'd drink coffee, play video games, and read the newspaper until it was time to shoot my scenes.

At 5-feet-7-inches, I'm the shortest member of the SWAT team, so I had to stand on boxes to do some of my scenes with the tall guys. I was also accused of having William Shatner hair, so I was nicknamed T.J. Rooker. I do impressions, so I tried to slip into my Columbo during my scenes, but I'm pretty sure the director will cut those out of the finished product.

Photos by Rod Fung

THOMAS RICHARD DRYDEN (Tom Denton)

I play Denton, the strong, quiet one (handsome too!). I fit into that general category called thirty-something. I was born and raised in and around San Francisco. My hobbies include a serious addiction to motorcycles, as well as playing the guitar in various underground club bands (opaque music that would bug most people).

Photo by Rod Fung

I've been an actor for about 15 years, coming into it gradually from a career as a working musician (out of the frying pan, into the fire). I trained at the American Conservatory Theater, studying modern as well as classical theater. Since then, I've performed on stage, hosted TV shows, done lots of commercials, starred in the occasional low-budget independent project, and been in lots of very small parts in very large movies (although I was Indiana Jones for five or six seconds in the second Indie film).

On a typical day, I'd report to the *SWAT* set and punch the time clock ("Mornin', Fred. Mornin', Sam"). Act. Make self scarce while some unforeseen Act of God forces production crew to metaphorically juggle chainsaws. Try not to eat too much off the cookie tray (watching my boyish figure). Act some more. Go back to the hotel and lie by the pool, wishing I could speak German to all the beautiful blond German tourists also lying by the pool.

Too many funny things happen to list them all. The highlights were watching the studio manager get all dewy-eyed and short of breath when he was drafted to play a crazed, bloodthirsty, terrorist whacko, shooting the place up with a machine gun (you guess which one he is). Another highlight was almost all of my interactions with Dave, the real LAPD SWAT guy who was on the set as a technical advisor. Dave can be a very funny guy.

Acting in *Police Quest: SWAT* was seven weeks of sheer unending bliss. Actually, it's quite interesting in that it's similar to making a film, only more so. That is to say, in a theater piece, during the run of the show you inhabit the character from the time the curtain goes up until the end of the night, progressing through the plot with the character. One plot. In film, all the moments that make up the story happen in little snippets, and they all happen out of sequence with each other, but it's still one plot (usually). However, in a computer game, everything happens in snippets, is out of sequence, and there are 10 or 20 different plots, all looping back on each other in a thoroughly perplexing fashion. As confusing as it may be for the actor, it is a wonder to me that the director doesn't end up looking like a Picasso painting. Hey, that was fun! Let's do some more!

L. PETER CALLENDER (J.D. Saunders)

I was born in Trinidad, West Indies. I grew up in New York City, lived in London, and now live in San Francisco. I'm married with one child. I love sports, computers, and reading.

I received a formal training in theater at Juilliard. I also studied with Tadashi Suzuki in Toga-mura, Japan. I have performed on and off Broadway and coast to coast. I am a member of the California Shakespeare Festival Acting Company. I did some of the voices in *The Nightmare Before Christmas,* and I've done everything from books on tape to national voice-overs, television sitcoms to now, the pinnacle of success, CD-ROM games.

CD-ROM games, like film and television, are static, a "do it over, put it all together at a later time" medium. It can, however, be quite enjoyable and lucrative. In this day and age, we must do these jobs to support our theater habit, but nothing equals performing live on stage except, perhaps, sex!

A typical work day on the *SWAT* set would mean arriving on the set at 8:30. Dress. Double check what's being done first for the morning session. I'd go over my lines, scenes, and blocking. Wait, wait, wait. Then I'd work intensely for one to three hours. Then break, lunch, play video games, hear some good jokes and some not-so-good jokes. Wait, wait, wait. Then work for one to three more hours. Sign out.

It was a great time from start to finish. A great cast and terrific crew from the director through all of the assistants. The funniest situation was on the first day when we taped the Easter eggs! Tom Cassell and I were singing songs from "Guys and Dolls." You had to be there....

TOM CASSELL (Danny Tello)

I'm 29 years old. I was born in New York City. I enjoy sports, music (jazz and classical), reading, and traveling. I began acting in college while pursuing a degree in playwriting. I acted in many original works in New York City before coming to California to study law. After a short stint in law school, I got back into the business in San Francisco. For the past year, I have been happily acting and singing (jazz, cabaret, and musical theater).

I'm thrilled to be acting in my first computer game. It's actually similar to film acting but vastly different from stage acting. The short bursts of focus required are very similar to film work. Like most film work, the intense periods of work were punctuated by periods of waiting. I probably prefer acting or singing in front of a live audience, but this work has its own set of challenges.

Photos by Rod Fung

The environment in the studio was very pleasant. I was always well-provided for. I did find the town of Oakhurst sorely lacking as far as nightlife was concerned, and so after work I spent a lot of time watching TV in my motel room. The most fun to be had was during the Easter egg portions of the taping. How was I to know that this game was going to spawn *Police Quest: The Musical?*

DOLORES GOLIGHTLY (Lucy Long)

I'm 66 years old, retired, and pursuing an acting career on stage, in TV and film, and commercials of all types. My hobbies are reading and oil painting. I am originally from Springfield, Illinois.

I studied drama at Stephens College, Northwestern University. At present, I am enrolled at the California State University at Fresno in Theater Arts, pursuing my degree. I have about two-and-a-half years to go. I have been active in little theater groups since 1965 and currently appear in Good Company Productions in Fresno, both at Second Space and the music hall. I have done several local commercials on TV and radio, and in print.

Photo by Rod Fung

I like acting in a computer game because it is shot in segments and, for that matter, so was I. My first session was mostly playing dead in every position imaginable! I am always fascinated by how the computer can make you bigger or smaller, or place you anywhere in the scene.

Appendices

Appendix A

GLOSSARY

Assaulter

A member of the SWAT entry team responsible for making a forced entrance and arresting suspects. The assault team is made up of three core members: the team leader, the scout, and the rear guard. Trailers and/or other officers are included as deemed necessary.

Balaclava

A black Nomex hood covering the head and neck. It is worn by SWAT officers to protect against sparks and to intimidate suspects.

Ballistics

The science of projectile motion and impact; in particular, the trajectory, velocity, and energy of bullets.

Bands and Rays

An observation technique in which an area is scanned methodically from side to side (bands) and from near to far and far to near (rays).

Barricaded Suspect

A barricaded suspect is defined by the following criteria: The suspect is believed to be armed. The suspect is believed to have been involved in a criminal act or is deemed a significant threat to citizens and/or police. The suspect is in a position of advantage by virtue of cover and concealment. The suspect refuses to submit to arrest.

Battle Dress Uniform (BDU)

The official SWAT uniform, the term BDU is synonymous with fatigues. It is a two-piece, tear-resistant outfit made of heavy cotton, consisting of a long-sleeve, four-pocket jacket and a pair of matching four-pocket pants with two cargo pockets on the hips. The BDU is treated with Dupont's Nomex flame retardant. LAPD's color choice is dark blue for most urban tactical operations, although the standard U.S. military four-color woodland pattern provides better camouflage in rural environments.

Breaching Explosives

Explosives used by the SWAT assault team to make an opening in a door, wall, or window during a dynamic entry.

Bullet Drop Compensator (BDC)

A knob on the rifle scope enabling the necessary aiming adjustment to compensate for distance. If the bullet drop compensator is set correctly, the shooter can center the reticle on the target for an accurate aim.

Call-Up

A crisis situation requiring the response of the SWAT unit.

Camouflage

The technique of disguising oneself and one's gear for the purpose of concealment. Patterned clothing, face paint, and foliage alter color and shape to render the officer invisible to the suspect.

Cold Barrel Zero

The calibration of a rifle scope so that the first round (the cold shot) hits the target dead center. SWAT snipers cold barrel zero their rifles for a distance of 100 yards.

Comeups

Dependent upon the rifle and ammunition type, a comeup is the adjustment in minutes of angle necessary to go from one distance to another in 100 yard increments.

Commendations

Medals, ribbons, and citations awarded in recognition of outstanding service or acts of bravery. Officers receive commendations for individual or unit efforts above and beyond the call of duty. The LAPD's highest award is the Medal of Valor, which is presented to an officer distinguished by an act of conspicuous heroism in the face of imminent peril.

Concealment

Natural or artificial features that shield the sniper from observation. Concealment, which does not protect against gunfire, should always be used in conjunction with cover.

Containment

Containment is a SWAT term relating to the prevention of a suspect's escape. Containment operations involve establishing perimeters, coordinating all activity, and restricting access to the area.

Cover

Used conjointly with concealment, cover provides a sniper with protection against gunfire while not necessarily guarding against observation. Cover may be either a natural feature like a tree or a man-made object like a building.

Crime Suppression

When a SWAT officer is not on a call-up or training, he becomes available for a duty known as crime suppression. Officers target an area statistically determined to be subject to a particular criminal trend. Teams of two or more SWAT officers patrol the area, pursuing any leads that come their way.

Crisis Negotiation Team (CNT)

The CNT is comprised of SWAT officers and non-SWAT professionals specially trained in the verbal and tactical skills necessary to negotiate with a barricaded suspect. The CNT consists of five members: the team supervisor, the primary and secondary negotiators, the psychologist, and the investigator. The CNT establishes and maintains communication at the onset of the incident with the purpose of securing the release of hostages and safe surrender of the suspect.

CS Gas

The common name for orthochlorobenzalmalanonitrile, CS gas is the primary tear gas chemical used by SWAT. Launched into the barricaded area, CS gas often incapacitates the suspect to the point where he surrenders, curtailing the need for additional tactics or entry.

D Platoon

The SWAT unit, designated D Platoon, is based at the LAPD's Metropolitan Division in downtown Los Angeles. Metro houses four other platoons: A Platoon (administration), B Platoon (Valley area), C Platoon (East and South L.A.), and E Platoon (equestrian).

Decoy

A phony target or hide intended to lure the suspect's fire away from the SWAT sniper's true location.

Diversionary Device

A nonlethal alternative tactical device designed to incapacitate the suspect without inflicting permanent damage. The most commonly used diversionary device is the flashbang,

although many other inventions are being developed and tested prior to use in the field.

Dope Book

The notebook that accompanies each rifle throughout its use, recording the accuracy of every round fired along with shooting conditions and relevant data.

Dynamic Entry

In a dynamic entry, the assault team forces a sudden entrance into a barricaded location. In order to catch the suspects by surprise and cut off escape routes, the team should enter at a minimum of two points. Explosives or battering rams may be used to breach doors and windows, with diversionary devices deployed simultaneously to distract the suspect's attention.

Element

The element is SWAT's basic five-man team, comprised of a team leader, a scout, a rear guard, a sniper, and a sniper's observer. The leader, scout, and guard make the entry while the sniper and observer take the high ground to provide cover. The element is backed up on operations by additional personnel as needed.

Engagement Sequence

The engagement sequence is a series of steps that the sniper routinely practices so that it becomes an automatic response during a crisis situation. In brief, the engagement sequence is:

1. Locate the target.
2. Get into a stable position.
3. Estimate the range.
4. Optically confirm the target.
5. Estimate the wind.
6. Aim and fire.
7. Follow through and reload.
8. Engage other targets (optional).

Fast-Roping

Fast-roping refers to a rappelling technique used by SWAT. Looping the rope through and around a figure eight, or clog, makes for a speedy descent and quick release that enables the entire team to rappel in quick succession.

Flashbang

A frequently used diversionary device that employs explosive noise and light to temporarily confuse and distract the suspect. Thus incapacitated, the suspect may be taken into custody without the need to resort to violent tactics.

Fleeting Target

In many SWAT sniper situations, the suspect is well covered and concealed, revealing himself for only a few seconds at a time. This jack-in-the-box behavior defines a fleeting target.

Ghillie Suit

Ghillie suits are custom-made camouflage outfits used by SWAT and the military to provide concealment during field operations. Commonly called a G-suit, the Ghillie suit is a one- or two-piece uniform augmented with burlap strips and paint in a complex blend of colors and textures designed to match a specific environment.

Hide

A hide is a carefully concealed, protected location from which the sniper covers his sector of fire. Used by SWAT for purposes of surveillance as well as engagement, a well-constructed hide enables an officer to remain inconspicuous, thus maintaining a decided advantage over the suspect.

Hold

The compensation made for wind or elevation by aiming off-center (right or left for wind, up or down for elevation) rather than by using the adjustment knobs on the rifle scope.

Hostage

A person kept captive by force or threat of violence by the hostage-taker in an attempt to have demands met.

Lead

The compensation a marksman makes for a moving target is called "lead." If the sniper must fire while the suspect is moving, then a lead is applied for an accurate aim. As an example, the lead for .308 Federal Match ammunition is approximately 7 inches for every 100 yards if the suspect is walking. Lead can be calculated in terms of mil dots for increased speed and accuracy.

Lead Climber

As the first climber up, the lead climber is responsible for determining the route and placing protection.

Los Angeles SWAT Headset (LASH)

Designed specifically for LAPD SWAT, the LASH is currently used by SWAT teams throughout the country as well as the U.S. Army Special Forces and Navy SEALs. The LASH consists of an ear piece, a throat microphone that picks up vibrations from the voice box, and an in-line switch that attaches to the front of the tactical vest.

Mil Dot

The term mil dot is formed by combining the abbreviation for milliradian (angular width equal to 1/6400 of a circle or 3.44 minutes of angle) with the word dot, which refers to the dots placed on the reticle as reference points. However, one mil dot is defined as the distance between the center of one dot and the next, rather than the width of dot itself.

Mil Dot Reticle

A rifle scope reticle set with equally spaced dots along the crosshairs. The distance between each dot measures one milliradian (or mil dot for short). At a distance of 1,000 yards, a target that spans one mil dot in the rifle scope measures one yard in actuality. A mil dot reticle enables a marksman to estimate ranges without moving his eye from the scope.

Minute of Angle (MOA)

A Minute of Angle (or MOA) is defined as a fixed angle that results in a measurement of one inch at a distance of 100 yards, two inches at 200 yards, etc. The Leupold Mark 4 rifle scopes used by LAPD SWAT come equipped with windage and elevation adjustment knobs calibrated to ¼ MOA increments. This means that at a distance of 100 yards, 1 click stop on the knob results in a ¼ inch difference in the placement of the shot. At 200 yards, 1 click stop equals a ½ inch adjustment. At 300 yards, 1 click stop equals ¾ inch, etc.

Observer

Also known as the spotter, the observer works with the sniper to detect and identify targets, assists in estimating range and windage values, directs the sniper's fire, and reports the result of the shot. The observer is also responsible for radio communications and keeping written records.

Range Card

A sketch of the sniper's sector of fire including landmarks, suspect location, and lines representing range estimates at appropriate intervals. Wind direction and speed may also be indicated with an arrow on the range card.

Rappelling

Descending a rope using friction or mechanical braking devices to control the rappeller's speed.

Reticle

Synonymous with the term crosshair, reticles come in a variety of widths and styles. The Leupold rifle scope used by LAPD SWAT has a duplex reticle, so named because the outer portion of each crosshair is thick for better visibility, while the inner portion is very thin and superimposed with dots spaced one mil dot apart. The mil dot reticle allows for excellent range estimation, holds, and leads.

Roll Out

The term roll out refers to looking around a corner by bending at the waist and leaning out. This reduces the target area you expose to enemy fire.

Scope

Rifle scopes come in two basic types, fixed power and zoom, but they have a wide variety of features, including bullet drop compensators, mil dot reticles, and elevation and windage adjustment knobs.

Sector of Fire

The area that a sniper is assigned to cover. In an urban environment, an oblique sector of fire increases range and places fire at an odd angle difficult to return or avoid. Using elevation to increase range is another urban sniping technique.

Slice the Pie

A movement technique in which you round a doorway or corner by maximizing your distance from the corner and moving tangentially in angular segments, or "pie slices." By slicing the pie, you minimize the risk of suddenly revealing yourself to the enemy.

Sniper

A highly trained marksman who uses craft, stealth, a target-grade rifle, and a rifle scope to neutralize a target with surgical precision.

Stealth Entry

The unique circumstances of each call-up dictate whether a dynamic or stealth entry technique should be used. In a stealth entry, the team attempts to surround and contain the area without the suspect's awareness. To do so requires extreme caution and movement discipline, including techniques such as the "roll out" and "slicing the pie."

Stingball

A flashbang that scatters rubber pellets when deployed. Used by police to disperse crowds in riot situations, the stingball has a limited, controllable range and, unlike a tear gas canister, cannot be picked up and thrown back at the officers.

SWAT

Coined by Chief Daryl Gates in 1967, SWAT is an acronym for Special Weapons and Tactics. The LAPD SWAT force consists of 60 officers, six sergeants, and a lieutenant. Designated D Platoon, SWAT is stationed out of Metropolitan Division in Los Angeles.

Tactical Movement

The art of moving silently and stealthily to approach a suspect or location without discovery.

Tracking

Tracking refers to pacing a moving target with the reticle. A modification of this method begins with swinging from behind the suspect, catching up to him, and slightly passing him for the lead.

Trapping

Trapping is a technique used for shooting a moving target. The sniper holds a stationary aim and waits for the suspect to walk into the sights. When the suspect is positioned for the correct lead, the sniper fires. Trapping is the best method to use at long range with a fleeting target.

Up/Down Compensation

The compensation for the difference in elevation between the sniper and the target. Whether one is compensating for an uphill or downhill change in elevation, the aim is always lower depending on the angle and distance to the target.

Windage

The adjustment a sniper must make for direction and speed of the wind when placing a shot.

Cast

Eric Flom . . . . . .SWAT Pup
Steve Barkley . . . . . .Sgt. Rooker
Doug Morrisson . . . . . .Officer Pacmeyer
L. Peter Callender . . . . . .Officer JD Saunders
John Eggold . . . . . .Sgt. Pauldon
Bryan Kent . . . . . .Sgt. Pruett
Tom Dryden . . . . . .Officer Tom Denton
Christopher Boylan . . . . . .Officer Tony Carmichael
Michael Reed . . . . . .Officer Scotty Wixell
Tony Vella . . . . . .Officer Frank Rhea
Tom Cassel . . . . . .Officer Danny Tello
Jim Tuck . . . . . .Lt. Hancock
Dolores Golightly . . . . . .Lucy Long
Joseph Murphy . . . . . .Patrick Allen
Nick Scoggin . . . . . .Militia Leader
Roy Conrad . . . . . .Herbert Long
Jeannie McKelvey . . . . . .Katie Long
Jarion Monroe . . . . . .Officer Pete Monroe
Keith Kelly . . . . . .Sidney Devon
Terry Lewis . . . . . .Officer Bob Lewis
Sharon Tuck . . . . . .Mrs. Schneibly
Carlos Sanchez . . . . . .Hector Martinez
Patrick Allen Tromborg . . . . . .Officer Tobin
Ketty Massengale-Chamlin . . . . . .Coco Brown
Richard Dupell . . . . . .Ron Eastman
Jeff Richardson . . . . . .Sgt. Ross
Brian Leonard . . . . . .Andy Durham
Billy Bob Bates . . . . . .Militia Member
Bobby Joe Bates . . . . . .Militia Member
Carol Bach-Y-Rita . . . . . .Narrator

Special Thanks

Chief Daryl F. Gates, LAPD, Retired
Lt. Tom Runyan, LAPD
Sgt. Andy Lamprey, LAPD
Sgt. Michael Albanese, LAPD
Sgt. Albert Preciado, LAPD
Sgt. Gil Waldron, LAPD
Sgt. Bob Brannon, LAPD
Officer Joe Cordova, LAPD
Officer Patrick Martin, LAPD
The Officers of D Platoon, LAPD
Lt. Ron McCarthy, LAPD, Retired
LAPD Air Support
Bill Pegler, LASH / Television Equipment Associates, Inc.
John Matthews, Laser Products
Heckler & Koch
Robbie Barrkman, Robar Industries
Rick Regan, Leupold & Stevens, Inc.
Gilman Mayfield Firearms
Marie Salerno, SAG
Larry Glick, National Tactical Officers Association
Chamlin Enterprises
Nancy Miller, Good Company Players
Jerry Bowerman
Craig Alexander

SWAT Team Rogues' Gallery

TAMMY DARGAN

Designer/Director/ Writer/Producer

The Mastermind

PHY WILLIAMS

Producer

"Baby Face"

ROD FUNG

Director of Art & Photography

Armed and Believed Dangerous

SEAN MOONEY

Lead Programmer

The Brains of the Organization

RANDY MACNEILL

Lead Programmer

The Code Cracker

DAN KEHLER

Musician

"The Family Man"

TERRY ROBINSON

Lead Artist

"Doc, give me a holiday"

The Artful Dodgers

Artists

DONALD WALLER

DEANNA YHALKEE

ROBIN BRAZE-PHANCO

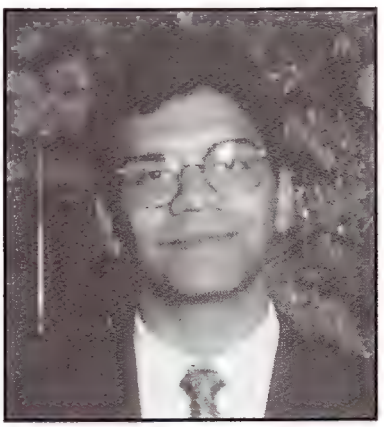
KARIN NESTOR

"Quick Draw"

The Spies Who Came in from the Code

Programmers

ARJIT DE



CHRIS "CORVETTE" CARR

MICHAEL LYTTON

MICHAEL LEO CHONG

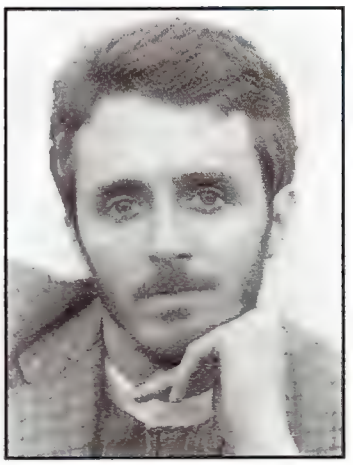
SUSAN FRISCHER

Assistant Designer

The Informer

JON MEEK

Quality Assurance Lead



"Lady Killer"

DAN WOOLARD

Quality Assurance

"Dead Eye Dan"

VICTOR CREWS

Audio Post Production & Sound

"Spike"

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Wally Andrews

Audio Post-Production & Sound Effects

Dan Kehler, Victor Crews, Rick Spurgeon, Kelli Spurgeon

Print Production Manager

Lori Lucia

Quality Assurance Configuration

Paul Biagio Trowe, Lead Tester

Scott Howell, Assistant Lead Tester

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Leonard Salas, Bill Davis, Jr., Michael Pickhinke, John Traugen, Sharon Simmons, Karen Austin

Technical Support: Jillian Leonard, John Cunney, Steve Deckert

LAPD SWAT Advisors

Officer Bob Bennyworth

Officer Dave Cervantes

Officer Greg Horton

Officer Rick Massa

Officer Steve Stear

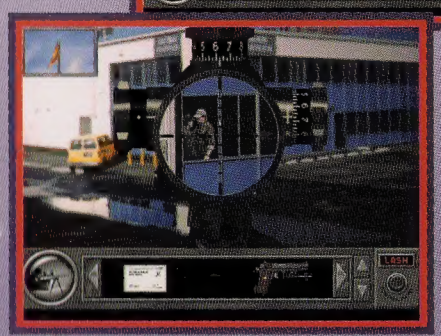
Officer Lou Villalobos

Weapons Handlers

Syd Stembridge, Roland Bleitz
Stembridge Gun Rentals, Inc.

Special Effects Make-Up

Jeff White



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